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Yesterday, Today, and Tomorrow: Looking Afresh at the Convention on Biological Diversity

Elisa Morgera and Elsa Tsoumani

The Convention on Biological Diversity (CBD) has been hailed as the epitome of a new generation of multilateral environmental agreements (MEA) at the crossroads of environmental protection and development.¹ At the time of its inception, it marked a departure from earlier international environmental law instruments by supporting a balance between conservation and sustainable use rather than a blanket preference for conservation.² It introduced novel legal concepts such as biodiversity,³ ecosystems,⁴ genetic resources and biotechnology, benefit sharing, and traditional knowledge.⁵ It provided an innovative and flexible framework for accommodating developed and developing countries' concerns and capacities⁶ and for encouraging partnerships between national and local authorities, local and indigenous communities, and the private sector.⁷

At the same time, the CBD has also attracted intense criticism for its vague and heavily qualified text, which is fraught with loopholes.⁸ It has also been considered an ineffective and fragmented process that has had little impact on state practice, making instead a continuous attempt to expand its subject matter without fully achieving or systematically assessing progress on previously agreed commitments.⁹ To some extent, these shortcomings have been explained by the 'vast scope of the Convention and its emphasis on an integrated approach,' but they may also reflect a lack of prioritization in agenda setting, which makes it impossible for the CBD Conference of the Parties (COP) to devote sufficient attention to all thematic areas.¹⁰ They may further be due to the fact that the convention's scope entails action

The title of this article is inspired by the Italian film *Ieri, oggi, domani* (1963), directed by Vittorio de Sica. The authors are very grateful to Annalisa Savaresi, Jacques Hartmann, David Cooper (Convention on Biological Diversity), and Andrew Brooke for their comments on an early draft of this article. The authors, who have attended meetings of the CBD bodies in an observer capacity since 2005 and 1999 respectively, remain solely responsible for any error or omission.

¹ Convention on Biological Diversity, 31 I.L.M. 822 (1992) [CBD]. L. Glowka et al., A Guide to the Convention on Biological Diversity (1994); C. Tinker, *A New Breed of Treaty: The United Nations Convention on Biological Diversity* 12 Pace Env'tl L. Rev. 191 (1995).

² S. Johnston, *The Convention on Biological Diversity: The Next Phase* 6 R.E.C.I.E.L. 219 (1997).

³ R. Rayfuse, *Biological Resources*, in D. Bodansky, J. Brunnée, and E. Hey, eds., *The Oxford Handbook of International Environmental Law*, 362 (2007).

⁴ D. Tarlock, *Ecosystems*, in Bodansky, Brunnée, and Hey *supra* note 3, 574.

⁵ A. Meyer, *International Environmental Law and Human Rights: Towards the Explicit Recognition of Traditional Knowledge* 10 R.E.C.I.E.L. 37 (2001).

⁶ D. McGraw, *The CBD: Key Characteristics and Implications for Development* 11 R.E.C.I.E.L. 17 (2002).

⁷ L. Kimball, *Institutional Linkages between the Convention on Biological Diversity and Other International Conventions* 6 R.E.C.I.E.L. 239 (1997).

⁸ M. Chandler, *The Biodiversity Convention: Selected Issues of Interest to the International Lawyer* 4 Colorado J. Int'l Env'tl L. 141 (1993). Note that P. Birnie, A. Boyle, and C. Redgwell, *International Law and the Environment*, at 617 (2009), argue that it is necessary to 'look more to the implementation process than the textual analysis of the Convention's provisions in order to measure its contribution to the conservation of biodiversity.'

⁹ McGraw, *supra* note 6 at 23.

¹⁰ Johnston, *supra* note 2 at 223 and 225.

on the ground by a wide range of national and local authorities, which often work in isolation, thus creating another stream of implementation problems.

Despite its detractions, the convention has now reached almost universal membership.¹¹ The notable exception is the United States, which nonetheless participates in the CBD process and, at least to some extent, supports the convention's role and some of its outputs.¹² The biannual meetings of its COP are high-profile decision-making events at which non-parties, international governmental and non-governmental organizations, indigenous peoples' representatives, prominent business associations, and research institutes actively participate with great investment in time and resources. More importantly, the CBD COP's normative activity is testimony to an intense, evolving, and creative interpretation of the convention by the international community.¹³

In light of the almost twenty years of implementation, we should 'look afresh' at the convention to assess its evolution and current legal significance with a view to better understanding its immediate future.¹⁴ To this end, this article critically analyzes the outcomes of the tenth COP (COP-10), with a view to determining progress in the development and implementation of the CBD and highlighting key future directions both at the level of international cooperation and national implementation.¹⁵

After briefly introducing the *modus operandi* of the convention, the article outlines the legal and policy relevance of the international community's failure to meet the global target of reducing significantly the rate of biodiversity loss by 2010. Attention then focuses on the process and main outcomes of COP-10, which is arguably the most important CBD COP thus far, and assesses these outcomes with a

¹¹ For an overview of the status of ratification/acceptance of the CBD, see <http://www.cbd.int/convention/parties/list/>.

¹² While it is well beyond the scope of this article to assess the United States's practice *vis-à-vis* the CBD, three instances can be identified to support the view that the United States is involved in the CBD process. First, by participating in the CBD process itself – for instance, the United States participated actively in the negotiations of a CBD moratorium on geo-engineering (see E. Morgera, *Far Away, So Close: A Legal Analysis of the Increasing Interactions between the Convention on Biological Diversity and Climate Change Law* 2 Climate Law 85 at 96 (2011)). Second, the United States occasionally supports CBD outcomes in other international fora – for instance, the United States supported the use of the CBD scientific criteria on ecologically and biologically significant areas in the context of the UN General Assembly's Working Group on Marine Biodiversity in Areas beyond National Jurisdiction (see *Summary of the Fourth Meeting of the Ad Hoc Open-ended Informal Working Group to Study Issues Relating to the Conservation and Sustainable Use of Marine Biological Diversity beyond Areas of National Jurisdiction*, 31 May - 3 June 2011 25(70) Earth Negotiations Bulletin (6 June 2011) at 7). Third, the United States includes text supporting implementation of the CBD in its bilateral free trade agreements. See, for instance, Article 18.11 of the 2009 US-Peru Trade Promotion Agreement and S. Jinnah, *Strategic Linkages: The Evolving Role of Trade Agreements in Global Environmental Governance* 20 J. Env't & Dev. 191 at 197-98 and 209 (2011).

¹³ For a discussion of the significant evolution of the interpretation of the CBD references to benefit sharing, see E. Morgera and E. Tsioumani, *The Evolution of Benefit-Sharing: Linking Biodiversity and Community Livelihoods*, 15 R.E.C.I.E.L. 150 (2010).

¹⁴ *Case Concerning Gabčíkovo and Nagymaros Project (Hungary/Slovakia)*, Judgment of 25 September 1997, [1997] I.C.J. Rep. 92; 37 I.L.M. 162 (1998). at para. 140.

¹⁵ The tenth Conference of the Parties (COP-10) adopted forty-nine decisions. This article will address a significant handful of them. For the full text of all COP-10 decisions, see the official report of the meeting (UN Doc. UNEP/CBD/COP/10/27 (2010), <http://www.cbd.int/doc/meetings/cop/cop-10/official/cop-10-27-en.pdf>). For an earlier assessment, see E. Morgera, *CBD COP 10: Towards Post-2010 Implementation* 40 Env'tl Pol'y & L. 281 (2010).

view to discussing the future of the convention. To this end, the article offers a brief analysis of the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization (Nagoya Protocol),¹⁶ in order to clarify how the operationalization of the third objective of the CBD may influence the implementation of the whole CBD regime.¹⁷ The article then assesses COP-10 decisions on indigenous and local communities and traditional knowledge, exploring the reciprocal influence between the UN Declaration on the Rights of Indigenous Peoples and the CBD.¹⁸ The legal implications of the Strategic Plan for Biodiversity 2011-20 are then identified, followed by a discussion of the developments in addressing the relationship between sustainable funding and successful implementation and of the increasing attention paid by the CBD parties to climate change impacts and response measures. Finally, the article discusses the main outcome of the fifth Meeting of the Parties (MOP) to the Cartagena Protocol on Biosafety,¹⁹ briefly assessing the strengths and weaknesses of the Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress (Supplementary Protocol) and its role in the overall CBD regime.²⁰ The conclusions identify the challenges posed by the significant evolution of the CBD's scope as well as the increased need for coherent implementation of its three objectives at the international and national level.

I. SETTING THE CONTEXT: THE CBD'S *MODUS OPERANDI*

Widely seen as a framework convention, the CBD provides a flexible conceptual structure for both international cooperation and national implementation.²¹ On the one hand, the convention allows for its further development through the negotiation of annexes and protocols.²² It builds upon pre-existing agreements while establishing a wider context in which such agreements (notably species- and area-based international environmental agreements) should be interpreted and implemented.²³ On

¹⁶ 2010 Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization to the Convention on Biological Diversity, <<http://www.cbd.int/abs/text/>> [Nagoya Protocol]. Negotiations were held within the CBD Working Group on ABS, in accordance with the mandate received by COP-7, following the call of the UN World Summit on Sustainable Development to negotiate, within the CBD framework, an international regime to promote and safeguard the fair and equitable sharing of benefits arising out of the utilization of genetic resources (Johannesburg Plan of Implementation, UN Doc. A/CONF.199/20 (4 September 2002), Resolution 2, Annex, para. 44(o)).

¹⁷ According to Article 1 of the CBD, *supra* note 1, the third CBD objective is 'the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.'

¹⁸ UN Declaration on the Rights of Indigenous Peoples, UNGA Resolution 61/295 (13 September 2007).

¹⁹ Cartagena Protocol on Biosafety to the Convention on Biological Diversity, 39 I.L.M. 1027 (2000).

²⁰ 2010 Nagoya-Kuala Lumpur Supplementary Protocol on Liability and Redress to the Cartagena Protocol on Biosafety, <http://bch.cbd.int/protocol/NKL_Protocol.shtml> [Supplementary Protocol].

²¹ McGraw, *supra* note 6 at 18, n. 10.

²² CBD, *supra* note 1, Articles 28 and 30.

²³ McGraw, *supra* note 6 at 18-19, n. 21, who argues that the CBD is not formally an 'umbrella' convention because it does not supersede previous agreements but has the normative character of an umbrella convention in articulating new norms that could also apply to pre-existing

the other hand, implementation at the national level is particularly significant given that ‘the Convention is dealing with the management of an essentially domestic resource,’²⁴ thus relying heavily on the development of national biodiversity strategies and action plans (NBSAPs).²⁵

Over time, the convention has developed a complex system of processes and instruments for its implementation at the international level. The CBD’s text provides for regular meetings of the COP²⁶ and the Subsidiary Body on Scientific, Technical, and Technological Advice (SBSTTA).²⁷ The COP is principally mandated to keep under review the implementation of the convention, including by undertaking ‘any additional action that may be required for the achievement of the purposes of this Convention in the light of experience gained in its operation.’²⁸ On this basis, it has evolved into a prolific norm-creating body across all areas covered by the CBD and on issues that are directly or indirectly related to biodiversity.²⁹ The SBSTTA, in turn, is mandated to provide ‘timely advice’ to the COP on the implementation of the convention. While it was expected to focus on scientific and technical advice, the SBSTTA has been criticized for the political nature of its debates and has often been seen as a pre-COP exercise in which scientists have limited input.³⁰

This ‘minimal’ governance structure has in time been increased to include various other subsidiary bodies, including the Working Group on Access and Benefit-Sharing (ABS),³¹ which has been the forum for negotiating the Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising Out of Their Utilization (Bonn Guidelines)³² and the Nagoya Protocol; the Working Group on Article 8(j), addressing issues related to the protection of traditional knowledge,³³ the Working Group on Review of Implementation of the Convention (WGRI), which is called upon to examine the implementation of the convention, including NBSAPs;³⁴ and the Working Group on Protected Areas, which was convened to guide and monitor the implementation of the CBD programme of work

agreements. See also Birnie, Boyle, and Redgwell, *supra* note 8 at 615-16, who agree that the CBD is a framework, but not an umbrella, convention.

²⁴ Johnston, *supra* note 2 at 226-27.

²⁵ In accordance with Article 6 of the CBD, *supra* note 1, which states: ‘Each Contracting Party shall, in accordance with its particular conditions and capabilities: (a) Develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes which shall reflect, *inter alia*, the measures set out in this Convention relevant to the Contracting Party concerned; and (b) integrate, as far as possible and as appropriate, the conservation and sustainable use of biological diversity into relevant sectoral or cross-sectoral plans, programmes and policies.’

²⁶ *Ibid.*, Article 23.

²⁷ *Ibid.*, Article 25.

²⁸ *Ibid.*, Article 23(4).

²⁹ As an indication of the exponential normative activity of the COP, it is noted that the number of decisions adopted by the COP raised from twelve at COP-1 to forty-seven at COP-10 (see <<http://www.cbd.int/decisions/>>).

³⁰ Johnston, *supra* note 2 at 225.

³¹ Decision V/26 on Access to Genetic Resources, Doc. CBD UNEP/CBD/COP/5/23 (2000) at para. 11.

³² Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising Out of Their Utilization, adopted by Decision VI/24 on Access and Benefit-Sharing as Related to Genetic Resources, Doc. CBD UNEP/CBD/COP/6/20 (2002) [Bonn Guidelines].

³³ Decision IV/9 on Implementation of Article 8(j) and Related Provisions, Doc. CBD UNEP/CBD/COP/4/27 (1998) at para. 1,

³⁴ Decision VII/30 on the Strategic Plan: Future Evaluation of Progress, Doc. CBD UNEP/CBD/COP/7/21 (2004).

on protected areas.³⁵ These working groups have been coupled with the creation of ad hoc technical expert groups (AHTEGs) and other less formal groups or meetings.

This institutional proliferation is worth analyzing from a two-fold perspective. First, it has resulted in the continuous refinement of the CBD provisions, through the development of thematic and crosscutting programmes of work, and the adoption of guidelines, principles, and other COP decisions. Second, this system is characterized by the lack of a mechanism to monitor national-level compliance, notwithstanding the reliance on national regulation for CBD implementation.

The CBD programmes of work are the main instrument that CBD parties use to achieve the commitments contained in the convention. They include guidelines for national implementation, often recommending reforms of national laws, policies, or administrative practices.³⁶ The work programmes also identify tasks for furthering implementation at the international level (for instance, assigning tasks to the CBD COP and subsidiary bodies with a view to the further refinement of CBD provisions or concepts) as well as opportunities for collaboration between the CBD and other international instruments or processes.³⁷

The CBD guidelines and principles are specifically aimed at influencing the conduct of CBD parties, non-party governments, inter-governmental organizations, as well as private companies and indigenous and local communities.³⁸ While the CBD's work programmes and guidelines can thus be distinguished as inward and outward instruments respectively, work programmes in practice have also often been designed to shape external behaviour.³⁹ Both work programmes and guidelines evidence an increasing emphasis on the contribution of non-state actors, particularly the private sector, to CBD implementation⁴⁰ and an evolving interpretation of the convention in

³⁵ Decision COP VII/28 on Protected Areas (Articles 8(a) to (e)), Doc. CBD UNEP/CBD/COP/7/21 (2004).

³⁶ The CBD COP has established seven thematic work programs, namely on agricultural biodiversity, dry and sub-humid lands biodiversity, forest biodiversity, inland waters biodiversity, island biodiversity, marine and coastal biodiversity, and mountain biodiversity; and five crosscutting work programs on incentive measures, the Global Taxonomy Initiative, protected areas, Article 8(j) (traditional knowledge), and technology transfer and cooperation. Work has also been undertaken on a series of other crosscutting issues, including climate change and biodiversity, the ecosystem approach, and sustainable use of biodiversity. See <<http://www.cbd.int/programmes/>>.

³⁷ On the latter aspect, see Kimball, *supra* note 7 at 241, commenting on the 'integrative' and 'supplementary' role of the CBD *vis-à-vis* other multilateral environmental agreements (MEAs).

³⁸ Addis Ababa Principles and Guidelines on Sustainable Use (Decision VII/12 on Sustainable Use (Article 10), Doc. CBD UNEP/CBD/COP/7/21 (2004)); Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment Regarding Developments Proposed to Take Place, or Which Are Likely to Impact on Sacred Sites, and Lands, and Waters Traditionally Occupied or Used by Indigenous People and Local Communities (Decision VII/16F on Article 8(j) and Related Provisions, Doc. CBD UNEP/CBD/COP/7/21 (2004)); guiding principles on invasive alien species (Decision VI/23 on Alien Species That Threaten Ecosystems, Habitats or Species, Doc. CBD UNEP/CBD/COP/6/20 (2002)).

³⁹ For instance, in the context of the sustainable production of biofuels, the CBD COP included among relevant CBD guidelines the work program on protected areas and the work program on traditional knowledge (CBD, *supra* note 1, Article 8(j); and Decision V/16 on Article 8(j) and Related Provisions, Doc. CBD UNEP/CBD/COP/5/23 (2000)).

⁴⁰ Morgera and Tsioumani, *supra* note 13 at 158 and 165-66. For an elaboration in the context of other international standards for corporate accountability, see E. Morgera, *Corporate Accountability in International Environmental Law* (2009), chapter 8.

ways that significantly depart from its letter.⁴¹

The evolution in the convention's interpretation and the overall coherence of the various instruments adopted by the COP have been obscured, however, by the convoluted, repetitious, and disorderly drafting of the CBD COP decisions.⁴² This is an obstacle not only for national policy makers involved in implementing the convention but also for negotiators hoping to ensure mutual supportiveness between the convention and other international processes. To complicate matters further, the CBD Secretariat has discontinued the publication of its *Handbook to the CBD*, which provided a synthetic guide to the myriad of decisions adopted by the CBD COP.⁴³

The second noteworthy feature of the CBD's institutional framework is that, notwithstanding the emphasis on national implementation, there is no mechanism to systematically and effectively monitor implementation and compliance at the national level. The CBD COP does not review individual national reports but, rather, offers conclusions on the basis of the CBD Secretariat's syntheses of these reports.⁴⁴ This examination tends to focus on the mere *submission* of the report and on a *quantitative* analysis of legislative developments (for instance, the percentage of parties with biodiversity-related legislation in place) rather than on a *qualitative* analysis of the content of the national reports, including the quality and comprehensiveness of national legislation and impacts of state measures on biodiversity and achievement of the CBD objectives. The SBSTTA has also engaged in the analysis of national reports,⁴⁵ as well as in the so-called 'in-depth reviews' of the implementation of the CBD work programmes, on the basis of work done by the Secretariat and the expert groups established by the COP for that purpose. These efforts, however, have not reached the heart of national implementation either. As a result, these exercises are unlikely to be effective in keeping tabs on implementation in various countries. They generally provide an indication of trends and some best practices but have not been used for 'name and shame' purposes or for identifying specific countries in need of assistance.⁴⁶ The creation of the WGRI did not necessarily provide any added value in terms of monitoring compliance by parties, as that working group has mostly focused on streamlining the processes within the CBD and ensuring cooperation between the CBD and other international or national non-state actors.

⁴¹ For a discussion of the CBD parties' dynamic interpretation of benefit sharing beyond the letter of the CBD's Articles 1, 8, and 15, see Morgera and Tsoumani, *supra* note 13 at 155-56 and 159-60.

⁴² CBD parties have long complained of this (see, for instance, Decision X/12 on Ways and Means to Improve the Effectiveness of the Subsidiary Body on Scientific, Technical and Technological Advice, Doc. CBD UNEP/CBD/COP/10/27 (2010), para. 6, which reads: '[The COP] requests the Executive Secretary to streamline the texts of suggested draft recommendations for submission to the Subsidiary Body and encourages Parties to make these recommendations as short as possible so that the actions required are clear'). Note that the Subsidiary Body on Scientific, Technical, and Technological Advice's (SBSTTA) recommendations form the basis of the majority of the CBD COP decisions and that this problematic drafting practice is reflected across all of the other sub-processes that contribute to formulating the rest of the CBD COP decisions.

⁴³ The latest edition (the third) was published in 2007 and covered decisions adopted by COP-7, which was held in 2004. See *Handbook to the CBD*, <<http://www.cbd.int/handbook/>>.

⁴⁴ Y. Xiang and S. Meehan, *Financial Cooperation, Rio Conventions and Common Concerns* 14 R.E.C.I.E.L. 212 at 218 (2005).

⁴⁵ CBD, *supra* note 1, Articles 25-26.

⁴⁶ As opposed, for instance, to the Convention on Wetlands of International Importance Especially as Waterfowl Habitat, 11 I.L.M. 963 (1972). See comments by Jamie Pittock, *A Pale Reflection of Political Reality: Integration of Global Climate, Wetland and Biodiversity Agreements* 1 Climate Law 343 at 363-64 (2010).

A few steps were taken at COP-10 to address the structural problems of the CBD described earlier. The new Strategic Plan for Biodiversity 2011-20,⁴⁷ which is analyzed later in this article, explicitly tasks the COP to consider in 2012 the possible development of additional mechanisms to facilitate compliance with the convention and the plan or the need to strengthen the SBSTTA or the WGRI to this end.⁴⁸ This mandate signals parties' increasing awareness of a gap in the CBD regime with regard to international monitoring of compliance, but it does not yet provide a clear indication of the response that will be devised to address it.

The new strategic plan is supposed to serve as the framework and main guidance for the revision, updating, and implementation of NBSAPs and also points to the CBD programmes of work as key tools for updating NBSAPs.⁴⁹ These are other welcome steps, as the first comprehensive assessment of NBSAPs that was launched during COP-10 indicated that, while NBSAPs are indeed an indispensable step towards implementation and have generated concrete results in many countries, they have not attenuated the main drivers of biodiversity loss or contributed to mainstreaming biodiversity in a broader development policy context.⁵⁰ Until recently, international guidance on NBSAPs has been limited and almost exclusively based on COP decisions.⁵¹ However, a series of regional and sub-regional workshops held during 2008-10 proved to be of significant assistance in guiding the drafting and review of national legislation and implementation in general, possibly suggesting a new approach for facilitating CBD implementation. Workshop participants – most of whom were responsible for CBD implementation at the national level – considered the workshops to be highly successful and stressed that the CBD should move away from policy development through international negotiations and focus more on strengthening implementation on the ground.⁵² This recognition motivated the decision of the Japanese COP presidency to fund another series of capacity-building workshops through the establishment of the Japan Biodiversity Fund.⁵³ Thus, even though international oversight of compliance under the CBD is lacking (at least for the time being), international guidance from the CBD can still positively influence national-level implementation in the immediate future.

II. MISSING THE 2010 TARGET: LEARNING THE HARD WAY

Lack of effective implementation of the CBD was clearly demonstrated in the international community's failure to meet the global target of reducing significantly the rate of biodiversity loss by 2010. This target had been adopted by the CBD COP

⁴⁷ Decision X/2 on the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets, Doc. CBD UNEP/CBD/COP/10/27 (2010).

⁴⁸ Ibid. at paras. 14-15. We are grateful to David Cooper for drawing our attention to this point.

⁴⁹ Ibid. at para. 15.

⁵⁰ C. Prip et al., *Biodiversity Planning: An Assessment of National Biodiversity Strategies and Action Plans* (2010). For an earlier assessment, see P. Herkenrath, *The Implementation of the Convention on Biological Diversity – A Non-Government Perspective Ten Years On* 11 R.E.C.I.E.L. 29 at 31-33 (2002), who noted that the first set of national biodiversity strategies and action plans (NBSAPs) highlighted a lack of basic knowledge due to limited capacity in taxonomy, lack of progress in national implementation of the convention, inadequacy of national protected area systems, and limited government support.

⁵¹ See, for instance, Decision IX/8 on Review of Implementation of Goals 2 and 3 of the Strategic Plan, Doc. CBD UNEP/CBD/COP/9/29 (2008) at para. 8.

⁵² Prip et al., *supra* note 50 at 106.

⁵³ See CBD webpages on NBSAPs workshops, <<http://www.cbd.int/nbsap/workshops2.shtml>> and on the Japan Biodiversity Fund, <<http://www.cbd.int/jbf/>>.

in 2002, with a view to measuring the impact of the convention.⁵⁴ The third edition of the *Global Biodiversity Outlook*,⁵⁵ released in mid-2010, provided scientific evidence that the global target had not been met, stressing the major implications for current and future human well-being, including the provision of food, fibre, medicines, and fresh water, the pollination of crops, the filtration of pollutants, and the protection from natural disasters. The causes of the failure ranged from the insufficient scale of action to implement the convention, the insufficient integration of biodiversity issues into broader policies, the insufficient attention to the underlying drivers of biodiversity loss, and the insufficient inclusion of the real benefits of biodiversity, and the costs of its loss, within economic systems and markets. According to the *Global Biodiversity Outlook*, better protection of biodiversity should be seen as a prudent and cost-effective investment in risk-avoidance for the global community, with continued direct action to conserve biodiversity targeting species and ecosystems that are vulnerable, culturally valued, and of importance to the poor.⁵⁶

The *Global Biodiversity Outlook*, as well as parallel work leading to the preparation of the new strategic plan for the convention, were clearly influenced by the 2005 Millennium Ecosystem Assessment.⁵⁷ This was an earlier global scientific process that facilitated global endorsement of the term ‘ecosystem services’ as the benefits people obtain from ecosystems,⁵⁸ and it increased attention on the contribution of biodiversity to human well-being and development under the convention.⁵⁹ Overall, these scientific and conceptual developments have shed new light on the CBD’s preambular language on biodiversity’s importance for meeting the food, health, and other needs of the world’s growing population and on biodiversity’s social, economic, scientific, cultural, and other values. Conceptualizing ecosystem services therefore highlighted the links between biodiversity and human development and, to that extent, ‘modernized’ the concept of sustainable use.⁶⁰

Against this background, some key priorities, with policy and legal implications for the future of the CBD, can be derived from the documented failure to reach the 2010 global target, namely a new and unprecedented emphasis on: mainstreaming biodiversity across different policy areas and instruments; restoring degraded biological resources and ecosystem services, in addition to conservation and

⁵⁴ The target was first agreed upon by the CBD COP through Decision VI/26 on Strategic Plan for the Convention on Biological Diversity, Doc. CBD UNEP/CBD/COP/6/20 (2002) at para. 11. It was subsequently endorsed by the World Summit on Sustainable Development (Johannesburg Plan of Implementation, UN Doc. A/CONF.199/20 (4 September 2002), Resolution 2, Annex, para. 44), and the United Nations General Assembly (2005 World Summit Outcome, Resolution 60/1 (24 October 2005) at para. 56).

⁵⁵ CBD and UN Environment Programme-World Conservation Monitoring Centre (WCMC), *Global Biodiversity Outlook* (2010), <<http://gbo3.cbd.int/>> [Global Biodiversity Outlook].

⁵⁶ *Ibid.* at 22.

⁵⁷ The Millennium Ecosystem Assessment, *Ecosystems and Human Well-Being: Synthesis* (2005), <<http://www.maweb.org/en/index.aspx>>. For a discussion of legal implications, see E. Morgera, *The 2005 UN World Summit and the Environment: The Proverbial Half-Full Glass* 15 Italian Y.B. Int’l L. 53 (2006).

⁵⁸ Such as food, water, timber, and fibre; regulating services that affect climate, floods, diseases, wastes, and water quality; cultural services that provide recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis, and nutrient cycling.

⁵⁹ See the launch of the Biodiversity for Development Initiative in 2008, which focuses on the role biodiversity can play for poverty alleviation and development. It should also be noted that the theme of the 2010 International Biodiversity Day was Biodiversity for Development and Poverty Alleviation. See CBD Secretariat, *Biodiversity, Development and Poverty Alleviation: Recognizing the Role of Biodiversity for Human Well-being* (2009).

⁶⁰ We are grateful to David Cooper for drawing our attention to this point.

sustainable use; valuing systematically the economic benefits of biodiversity and ecosystem services; and addressing the linkages between biodiversity and climate change.

On the last point, the *Global Biodiversity Outlook* emphasizes the links between biodiversity and climate change and the interactions between the respective international regimes. It concludes that the linked challenges of biodiversity loss and climate change must be addressed *with equal priority* and in close coordination, if the most severe impacts of each are to be avoided,⁶¹ highlighting that ‘tipping points in biodiversity loss are most likely to be avoided if climate change mitigation to keep average temperature increases below two degrees Celsius is accompanied by action to reduce other factors pushing ecosystems towards a changed state.’⁶² Biodiversity conservation and, where necessary, the restoration of ecosystems were considered cost-effective interventions for both mitigation and adaptation purposes, with substantial co-benefits.⁶³

Finally, the launch of the synthesis report on the *Economics of Ecosystems and Biodiversity* (TEEB) study during COP-10 further emphasized the need to assess and account for the economic value of biodiversity and ecosystem services as a means towards the enhanced conservation and sustainable management of natural resources.⁶⁴ Emerging from the 2007 meeting of the G-8+5 Group of Environment Ministers in Potsdam, Germany,⁶⁵ the TEEB process aimed to make the economic case for conservation, arguably to address an issue that was perceived as inadequately addressed by the millennium ecosystem assessment.⁶⁶ One of the fundamental arguments behind the TEEB approach was that applying economic thinking to the use of biodiversity and ecosystem services could help to clarify two critical points: why prosperity and poverty reduction depend on maintaining the flow of benefits from ecosystems and why successful environmental protection needs to be grounded in sound economics, including explicit recognition, efficient allocation, and fair distribution of the costs and benefits of conservation and sustainable use of natural resources.⁶⁷ At the same time, TEEB’s high visibility was hoped to elevate the CBD

⁶¹ Global Biodiversity Outlook, *supra* note 55 at 11 [emphasis added].

⁶² *Ibid.* at 75.

⁶³ *Ibid.* at 83. See also M. Kok et al., Prospects for Mainstreaming Ecosystem Goods and Services in International Policies (2010), <<http://www.pbl.nl/en/publications/2010/Prospects-for-Mainstreaming-Ecosystem-Goods-and-Services-in-International-Policies>>.

⁶⁴ The Economics of Ecosystems and Biodiversity (TEEB), The Economics of Ecosystems and Biodiversity: Mainstreaming the Economics of Nature: A synthesis of the approach, conclusions and recommendations of TEEB (2010), <<http://www.teebweb.org/>>.

⁶⁵ The G-8+5 includes the heads of government from the G-8 nations (Canada, France, Germany, Italy, Japan, Russia, the United Kingdom, and the United States), plus the heads of government of five emerging economies (Brazil, China, India, Mexico, and South Africa). The meeting was held on 15-17 March 2007 in Potsdam, their environment ministers decided to launch the Potsdam Initiative on Biological Diversity, including to ‘initiate the process of analysing the global economic benefit of biological diversity, the costs of the loss of biodiversity and the failure to take protective measures versus the costs of effective conservation’ in a global study. See the Potsdam Chair’s Conclusions, <http://www.bmu.de/english/international_environmental_policy/g8/doc/39119.php>.

⁶⁶ See C. Monfreda, *Setting the Stage for New Global Knowledge: Science, Economics, and Indigenous Knowledge in ‘The Economics of Ecosystems and Biodiversity’ at the Fourth World Conservation Congress* 8 Conservation and Society 276 at 279 (2010).

⁶⁷ TEEB, *supra* note 63 at 6.

profile in international decision making and to assist decision makers to recognize and integrate the values of ecosystems and biodiversity in all sectors.⁶⁸

Although the concept of ecosystem services as developed within the CBD framework has attempted to reconcile a rights-based and an economic approach to biodiversity policy, tensions persist. On the one hand, the concept of ecosystem services has served to facilitate an increased focus on the ecosystem approach, on its contribution to poverty eradication, and on the need for broader stakeholder engagement, by calling attention to the impacts of biodiversity loss on the most vulnerable sectors of society.⁶⁹ On the other hand, the concept of ecosystem services emphasizes economic valuation as a key instrument for mainstreaming biodiversity in other sectors and for tackling effectively all the drivers of biodiversity loss⁷⁰ (habitat loss and degradation, pollution, species over-exploitation, climate change, and invasive alien species).⁷¹

III. ENLIGHTENED AUTHORITARIAN MULTILATERALISM?

In addition to the pressure linked to the failure to reach the 2010 biodiversity target, CBD COP-10 was shaped by a series of other developments. Less than a year earlier, the climate change negotiations had collapsed in Copenhagen amid an unprecedented degree of global attention.⁷² This turn of events left some questioning the ability of the UN system to take decisive action on pressing environmental problems or the value of multilateralism generally.⁷³ Copenhagen's failure lowered hopes that the negotiations for an ABS protocol under the CBD could successfully reach agreement on the many complex and controversial issues remaining unresolved. To raise the pressure, during the September high-level meeting on biodiversity of the UN General Assembly,⁷⁴ the G-77/China explicitly conditioned their support for the adoption of the strategic plan on the finalization of the Nagoya Protocol and on specific funding commitments, including a decision on the implementation of the convention's

⁶⁸ In some ways, the aspiration for TEEB was to raise public awareness of the economic issues of biodiversity loss in much the same way as the Stern review did for climate change. See N. Stern, *The Economics of Climate Change: The Stern Review* (2006).

⁶⁹ For instance, Decision X/4 on Third Edition of the Global Biodiversity Outlook: Implications for the Future Implementation of the Convention, Doc. CBD UNEP/CBD/COP/10/27 (2010) at paras. 5(d) and (f), points to a series of rights-based strategies to prevent biodiversity loss: enhancing the benefits from biodiversity to contribute to local livelihoods; empowering indigenous and local community; and ensuring their participation in decision-making processes to protect and encourage their customary sustainable use of biological resources.

⁷⁰ Other future strategies to tackle biodiversity loss included in the same decision focus on: reflecting the benefits of biodiversity within economic systems; mainstreaming biodiversity concerns into planning and policy processes; and restoring degraded ecosystems. See Decision X/4, *supra* note 69 at paras. 5(a) and (e). On the latter point, note also that CBD COP-11, which is to be held in October 2012, is to identify ways and means to support ecosystem restoration, including through the development of practical guidance. Decision X/9 on the Multi-Year Programme of Work for the Conference of the Parties for the Period 2011-2020 and Periodicity of Meeting, Doc. CBD UNEP/CBD/COP/10/27 (2010) at para. (a)(ix).

⁷¹ Global Biodiversity Outlook, *supra* note 55 at 55.

⁷² On the Copenhagen Climate Change Conference, see L. Rajamani, *The Making and Unmaking of the Copenhagen Accord* 59 I.C.L.Q. 824 (2010); D. Bodansky, *The Copenhagen Climate Change Conference: A Post-Mortem* 104(2) A.J.I.L. 230 (2010).

⁷³ *Summary of the Tenth Conference of the Parties to the Convention on Biological Diversity* 9(544) Earth Negotiations Bulletin 27 (2010), <<http://www.iisd.ca/vol09/enb09544e.html>>.

⁷⁴ Sixty-fifth session of the UN General Assembly, high-level meeting of the General Assembly as a contribution to the International Year of Biodiversity, 22 September 2010.

Strategy for Resource Mobilization.⁷⁵ Developing countries thus treated these issues as a package.⁷⁶

Two days before the end of the meeting, however, the most contentious issues in the ABS negotiations – some of which are examined in the next section – remained unresolved. Similarly, the strategic plan and finance-related issues were not finalized. Acknowledging that the success of the meeting depended on the finalization of the ABS negotiations and eager to make the meeting a success, the Japanese COP presidency decided to convene a closed meeting in conjunction with the ministerial segment, including some, but not all, of the key negotiating groups.⁷⁷ While this procedural arrangement is certainly not unprecedented for international negotiations where the most controversial issues are often resolved in closed meetings, the move upset some key negotiators that were left out, both for its alleged lack of transparency and for the significance of the issues it addressed.⁷⁸ Nonetheless, the protocol's text was finalized on the basis of the compromise proposal put forward by the Japanese presidency, which was found to be sufficiently respectful of all of the groups' priorities (while omitting altogether the most contentious issues). Then agreement was also reached on the strategic plan and on resource mobilization. The substantive finance pledges by the Japanese government for implementation of the strategic plan and development of NBSAPs, as well as for ABS, contributed to the success of the final deal.⁷⁹ The Japanese contribution for ABS has been included, together with funds from France, Norway, and Switzerland, in the Nagoya Implementation Fund, which is managed by the Global Environment Facility (GEF) and operated by the CBD Secretariat. The fund will support countries in ratifying the protocol, particularly building capacity to ensure appropriate access to, and use of, traditional knowledge associated with genetic resources, and will finance projects at the national and regional levels promoting technology transfer, private sector engagement, and the conservation and sustainable use of genetic resources.⁸⁰

⁷⁵ See UNGA media release, 22 September 2010, <<http://www.un.org/News/Press/docs/2010/ga10992.doc.htm>>; and press conference on biodiversity by Minister for Environment of Brazil, 22 September 2010, <http://www.un.org/News/briefings/docs//2010/100922_Brazil.doc.htm>. Brazilian minister Izabella Teixeira said the three issues must be adopted 'as a package' in Nagoya: conclusion of negotiations on the ABS protocol; agreement on the strategic plan; and agreement on a robust and effective resource mobilization strategy. See *Summary of the Tenth Conference of the Parties to the Convention on Biological Diversity*, *supra* note 73.

⁷⁶ In the last phases of the CBD COP, the European Union proposed to also include the CBD budget in the package and, indeed, this is how these key outcomes of the COP were eventually adopted. See *Summary of the Tenth Conference of the Parties to the Convention on Biological Diversity*, *supra* note 73 at 25.

⁷⁷ *Summary of the Tenth Conference of the Parties to the Convention on Biological Diversity*, *supra* note 73 at 26.

⁷⁸ See G.N. Singh, *The Nagoya Protocol on ABS: An Analysis*, Ceblaw Brief (2011). Gurdial Singh of Malaysia, who was one of the key negotiators of the protocol, remarked: 'It was a miraculous end to some 14 days of tumultuous and rancorous negotiations – marked by a break up of the solidarity of negotiating developing country groups, and secret deals. It was finally foisted, primarily upon developing countries, by the Japanese presidency of COP, in an atmosphere reminiscent more of a surrender ceremony than a triumphant outcome. The two Co-Chairs of the Working Group, who had presided over the process for more than the four preceding years, were conspicuously kept out of these final hours' parallel processes.'

⁷⁹ See *CBD COP 10 Highlights: Wednesday, 27 October 2010* 9(542) *Earth Negotiations Bulletin* (2010), <<http://www.iisd.ca/vol09/enb09542e.html>>. See also the guidance circulated for the ministerial consultation [on file with authors].

⁸⁰ *GEF Establishes the Nagoya Protocol Implementation Fund*, CBD press release (3 June 2011), <<http://www.cbd.int/doc/press/2011/pr-2011-06-03-GEF-ImpFund-en.pdf>>.

The process raised some concerns about a possibly dangerous precedent of a lack of transparency in the CBD process, but the prevailing feeling in the closing plenary was one of satisfaction at an outcome that was generally acceptable and of restored trust in multilateral environmental negotiations. In many respects, the closed meeting that sealed the deal on the Nagoya Protocol does not seem comparable with its counterpart at COP-10 in Copenhagen in late 2009. Most notably, the Japanese COP presidency was largely considered open, cooperative, and constructive throughout most of the negotiations, and their efforts were appreciated as an attempt to find a balanced compromise within the deadline set for adoption of the protocol.⁸¹

IV. ACCESS, BENEFIT SHARING, AND COMPLIANCE: THE ABC OF THE NAGOYA PROTOCOL

Despite being assessed by many regional groups as ‘far from perfect,’⁸² the Nagoya Protocol,⁸³ as a new legally binding instrument under the convention, can be considered the most important outcome of COP-10. It aims to operationalize the third objective of the CBD by setting out rules and procedures on access, benefit sharing, and compliance. Its innovative obligations concerning indigenous and local communities are yet another example of the creative nature of the CBD regime, while giving rise to new implementation challenges.

The Nagoya Protocol arguably promotes an integrative interpretation and coherent implementation of the CBD. Its objective not only reflects verbatim the third CBD objective but also explicitly links it to the convention’s first and second objectives.⁸⁴ The same integrative approach seems to be supported by the protocol’s general clause encouraging users and providers to direct benefits arising from the utilization of genetic resources towards conservation and sustainable use.⁸⁵ This goal is further supported by the provision on the possible establishment of a global multilateral benefit-sharing mechanism, through which benefits arising from the use of genetic resources and traditional knowledge that occur in transboundary situations, or for which it is not possible to grant or obtain prior informed consent (PIC), are to support the conservation of biodiversity and the sustainable use of its components globally.⁸⁶

⁸¹ The deadline had been fixed for COP-10 by Decision VIII/4 on Access and Benefit-Sharing, Doc. CBD UNEP/CBD/COP/8/31 (2006) at para. 6.

⁸² See *Summary of the Tenth Conference of the Parties to the Convention on Biological Diversity*, *supra* note 73. During the closing plenary, a number of delegations including the African Group, the Central and Eastern European Group, Venezuela, and Bolivia made statements for the record to underscore their doubts about the new instrument’s quality and effectiveness.

⁸³ Decision X/1 on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from Their Utilization, Doc. CBD UNEP/CBD/COP/10/27 (2010). The Nagoya Protocol, *supra* note 16, includes twenty-seven preambular clauses, thirty-six operative provisions, and an annex containing an indicative list of monetary and non-monetary benefits, which replicates the list included in the Bonn Guidelines.

⁸⁴ Nagoya Protocol, *supra* note 16, Article 1, states that ‘[t]he objective of this Protocol is the fair and equitable sharing of the benefits arising from the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding, *thereby contributing to the conservation of biological diversity and the sustainable use of its components*’ [emphasis added].

⁸⁵ *Ibid.*, Article 9.

⁸⁶ *Ibid.*, Article 10. The multilateral benefit-sharing mechanism was devised as a compromise solution to divergences on the temporal scope of the Nagoya Protocol. See E. Tsoumani, *Access and Benefit-Sharing: The Nagoya Protocol* 40 *Env’tl Pol’y & L.* 288 at 289 (2010). The Intergovernmental Committee for the Nagoya Protocol will address the possible establishment

The Nagoya Protocol applies to genetic resources within the scope of Article 15 of the convention (on access to genetic resources),⁸⁷ to traditional knowledge associated with genetic resources within the scope of the convention, and to the benefits arising from the utilization of such resources and of such knowledge.⁸⁸ The reference to traditional knowledge marks a departure from the CBD. While Articles 1 (on objectives) and 15 of the CBD do not explicitly mention traditional knowledge, it is addressed in the context of *in situ* conservation in Article 8(j). The convention thus only provides for benefit sharing with regard to traditional knowledge, innovations, and practices that are relevant for the conservation and sustainable use of biodiversity and does not explicitly refer to traditional knowledge associated with genetic resources. Still, traditional knowledge under the CBD has been mostly discussed in the context of Article 15,⁸⁹ and, accordingly, traditional knowledge was addressed in the negotiations of the Nagoya Protocol on the basis of a combined reading of Articles 15 and 8(j). This interpretation reflects the fact that genetic resources frequently attract the interest of bioprospectors and gain value because of the traditional knowledge associated with them. In other words, it is traditional knowledge that sparks the utilization process or provides the initial interest in the potentially useful properties of a genetic resource. In these cases, genetic resources and traditional knowledge are arguably inseparable.⁹⁰

A first assessment of the provisions of the Nagoya Protocol related to traditional knowledge indicates that, despite their often ambiguous language and references to national legislation, they create significant obligations for parties, additional to those provided by the CBD text. Specifically, parties are required to take the appropriate legislative, administrative, or policy measures to ensure that benefits arising from the utilization of traditional knowledge associated with genetic resources are shared in a fair and equitable way and on mutually agreed terms with the communities holding such knowledge.⁹¹

The Nagoya Protocol also includes another unprecedented obligation for parties, which was the subject of arduous debate because of its links to human rights issues, including land and territorial rights, and issues of national sovereignty. The obligation calls for the adoption of domestic measures to ensure sharing of benefits arising from the use of genetic resources held by indigenous and local communities.⁹² The provision makes a reference to domestic legislation regarding the established rights of communities over these genetic resources, and it arguably intends to ensure

of the multilateral mechanism at its second meeting (Decision X/1, *supra* note 81, section B, para. 10 (work plan for the Intergovernmental Committee), scheduled for April 2012).

⁸⁷ One of the key issues in relation to scope was the issue of 'derivatives' of genetic resources. See Tsiumani, *supra* note 84 at 289.

⁸⁸ Nagoya Protocol, *supra* note 16, Article 3.

⁸⁹ Since the launch of the negotiations for an international ABS regime, the CBD Working Group on Article 8(j) has been addressing ABS as a permanent issue in its agenda. See, for instance, the *Report of the Fifth Meeting of the Ad Hoc Open-Ended Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity*, UN Doc. UNEP/CBD/COP/9/7 (2007), and *Report of the Sixth Meeting of the Ad Hoc Open-Ended Inter-Sessional Working Group on Article 8(j) and Related Provisions of the Convention on Biological Diversity*, UN Doc. UNEP/CBD/COP/10/2 (2009), Annex II on the international regime on access and benefit-sharing: provision of views to the *Ad Hoc* Working Group on Access and Benefit-sharing [Report of the Sixth Meeting].

⁹⁰ See the *Report of the Sixth Meeting*, *supra* note 89 at 36. This was also reflected in the Nagoya Protocol's preamble.

⁹¹ Nagoya Protocol, *supra* note 16, Article 5(1).

⁹² *Ibid.*, Article 5(2) [emphasis added].

that the protocol creates no new rights for communities over genetic resources, when such rights are not already established under domestic law. Nonetheless, it remains to be seen how courts will interpret this provision in light of relevant international human rights instruments,⁹³ including the right to self-determination⁹⁴ and the rights to lands, territories, and resources traditionally occupied by indigenous peoples.⁹⁵

Another unprecedented international obligation concerns access to traditional knowledge.⁹⁶ Parties are required to put in place national measures to ensure that traditional knowledge is accessed with the PIC of local and indigenous communities or with their approval and involvement. The latter is a formulation that was insisted upon during the negotiations by those resisting recognition of the right to PIC to indigenous and local communities.⁹⁷ Arguably, the provision also implicitly covers the right of the community to refuse access to its traditional knowledge.⁹⁸

The far-reaching provision on traditional knowledge associated with genetic resources is complemented by several other legal obligations of procedural nature for parties *vis-à-vis* indigenous and local communities, namely to take into consideration communities' customary laws, community protocols, and procedures regarding traditional knowledge associated with genetic resources; to establish mechanisms to inform potential users of traditional knowledge about their obligations towards communities; and to endeavour to support the development of community protocols and the minimum requirements for mutually agreed terms and model contractual clauses for benefit sharing by communities.⁹⁹ The Nagoya Protocol also prohibits restricting the customary use and exchange of genetic resources and associated traditional knowledge within and among communities.¹⁰⁰ Therefore, the provision

⁹³ See M. Alexander, P. Hardison, and M. Ahren, *Study on Compliance in Relation to the Customary Law of Indigenous and Local Communities, National Law, across Jurisdictions, and International Law*, <<http://www.cbd.int/doc/programmes/abs/studies/study-regime-06-en.pdf>> at n. 55.

⁹⁴ Enshrined in Article 1 of the International Covenant on Civil and Political Rights, 999 U.N.T.S. 171 (1966); and Article 3 of the UN Declaration on the Rights of Indigenous Peoples, UNGA Res 61/295 (2007) [UNDRIP].

⁹⁵ Enshrined in Articles 13-15 of the ILO Convention 169 on Indigenous and Tribal Peoples in Independent Countries of the International Labor Organization, 1650 U.N.T.S. 383 (1989); and Article 26 of the UNDRIP, *supra* note 94.

⁹⁶ Nagoya Protocol, *supra* note 16, Article 7.

⁹⁷ Note that the UN Permanent Forum on Indigenous Issues at its 2011 session noted that the term 'consultation' cannot replace or undermine the right of indigenous peoples to prior informed consent. See the *Report on the Tenth Session of the UN Permanent Forum on Indigenous Issues*, UN Doc. E/2011/43-E/C.19/2011/1416 (27 May 2011) at para. 36.

⁹⁸ In this context, it should be noted that the draft policy objectives and core principles for the protection of traditional knowledge currently under negotiation in the framework of the World Intellectual Property Organization's (WIPO) Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC) include a similar principle. *The Protection of Traditional Knowledge: Revised Objectives and Principles*, Document prepared by the WIPO IGC Secretariat, Doc. WIPO/GRTKF/IC/18/5 (2011), Annex, at 5.

⁹⁹ The term 'community protocols' refers to the bio-cultural protocol – an innovative tool to bridge the international concept of benefit sharing with communities' needs, aspirations, and livelihoods at the local level. It was experimented by Natural Justice, a legal non-governmental organization working with communities in southern Africa, India, and Kenya. See United Nations Environment Programme (UNEP), *Community Protocols for ABS* (undated), <<http://www.unep.org/communityprotocols/index.asp>>; and H. Jonas, K. Bavikatte, and H. Shrumm, *Community Protocols and Access and Benefit Sharing* 12 *Asian Biotechnology and Dev. Rev.* 49 (2010).

¹⁰⁰ Nagoya Protocol, *supra* note 16, Article 12.

refers both to a recognition of customary laws and procedures by domestic legal systems and to the establishment of mechanisms to facilitate implementation of ABS-related regulations with regard to traditional knowledge. In addition, the parties are to support the communities' implementation of their ABS regulations by empowering and preparing them to develop ABS arrangements. Such capacity-building provisions are also reflected in other protocol provisions, including provisions on awareness raising¹⁰¹ and capacity building.¹⁰²

Yet other unprecedented international obligations can be found in the provisions of the Nagoya Protocol on compliance. Parties are required to take 'appropriate, effective and proportionate legislative, administrative or policy measures' to ensure that genetic resources and traditional knowledge utilized within their jurisdiction have been accessed in accordance with the legislation and requirements of the party that provided them.¹⁰³ This provision makes national legislation of both the provider and the user country indispensable for implementing the Nagoya Protocol's requirements. Implementation of such provisions would require the establishment of some kind of mechanism in countries with users in their jurisdiction that would ensure that these users receive information on, and respect, the legislation of the countries that have provided the genetic resources or traditional knowledge. The fact that only a few countries have drafted domestic legislation on ABS, despite the adoption of the non-binding Bonn Guidelines in 2002, indicates that these earlier efforts to provide international guidance have not been successful in overcoming the complexities of implementing ABS at the national level and that innovative solutions are still required for the Nagoya Protocol to be operationalized.

Another key provision of the Nagoya Protocol, and a result of lengthy negotiations and a series of compromises, relates to monitoring the utilization of genetic resources at the national level in order to support compliance, including the designation of checkpoints.¹⁰⁴ Developed and developing countries had directly opposing views on the necessity for mandatory checkpoints, on the kind of information such checkpoints would manage, and on the disclosure requirements and consequences of non-compliance. The final text combines an international law obligation to establish checkpoints, as appropriate, with the flexibility to select those checkpoints that are most suited to national circumstances. The link between national and international levels of implementation is then guaranteed by an internationally recognized certificate of compliance, which aims to serve as evidence at the international level that the genetic resource that it covers has been accessed in accordance with PIC and that mutually agreed terms have been established at the national level.¹⁰⁵ The certificate basically consists of a national permit on ABS that is made available on the ABS clearinghouse – an international centralized information system that is expected to give certainty to both users and providers – and that will offer some sort of independent verification of ABS decisions on the ground. Operationalization of this certificate is expected to draw significantly from experience gained in the permitting framework under the Convention on International Trade in Endangered Species of Wild Fauna and Flora.¹⁰⁶

¹⁰¹ *Ibid.*, Article 21.

¹⁰² *Ibid.*, Article 22.

¹⁰³ *Ibid.*, Articles 15 and 16.

¹⁰⁴ *Ibid.*, Article 17.

¹⁰⁵ *Ibid.*, Article 13(3).

¹⁰⁶ Convention on International Trade in Endangered Species of Wild Fauna and Flora, 993 U.N.T.S. 243 (1973) [CITES].

It remains to be seen how compliance with these unprecedented obligations will be monitored. Currently, there is no existing compliance mechanism under an MEA to address state compliance with obligations *vis-à-vis* indigenous and local communities or state compliance with obligations to ensure that users respect other countries' national legislation. The Nagoya Protocol simply includes an enabling clause on monitoring compliance at the international level, foreseeing the future establishment of a compliance mechanism of a cooperative and non-adversarial nature.¹⁰⁷ In earlier negotiations, certain parties had argued for the establishment of a subsidiary body under the Nagoya Protocol to assist in the assessment of implementation, considering information communicated by parties.¹⁰⁸ Another innovative idea that had emerged in earlier negotiations, but did not make it in the agreed text, was the proposed establishment of an international ombudsperson to support developing countries and indigenous and local communities to identify breaches of rights and to provide technical and legal support in ensuring the effective redress of such breaches.¹⁰⁹ If established, such an innovative feature in the MEA landscape (which is more familiar in the human rights context) would potentially result in an international institution being able to work in the field directly with communities, while enabling such communities to have immediate access to an international avenue for their complaints related to the protocol.¹¹⁰

While it may take several years before the Nagoya Protocol enters into force, CBD parties are already anticipating significant compliance challenges with regard to, in particular, drafting national legislation and setting up measures to implement requirements regarding the decision-making structures needed to grant PIC; building the capacity of national institutes and indigenous and local communities to negotiate mutually agreed terms; and enforcing national legislation, particularly through building the ability of selected authorities to monitor genetic resources at the established checkpoints. Critical implementation issues are also expected to arise with regard to the extra-territorial application of provider countries' ABS legislation as required in the protocol. It thus remains to be seen whether the Nagoya Protocol will prove instrumental in setting up the international structures needed and in guiding the development of national legislation that are necessary to respond to developing countries' and indigenous peoples' expectations regarding biopiracy and the stewardship of genetic resources and traditional knowledge. It is equally too early to determine whether the protocol will ultimately operationalize ABS as a tool for sustainable development and as an innovative funding mechanism for the conservation and sustainable use of biodiversity.

V. TIME FOR INDIGENOUS 'PEOPLES' AND LOCAL COMMUNITIES UNDER THE CBD?

¹⁰⁷ Nagoya Protocol, *supra* note 16, Article 30.

¹⁰⁸ *Briefing Note: Summary of the Interregional Negotiating Group on Access and Benefit-Sharing: 18-21 September 2010*, Earth Negotiations Bulletin, <http://www.iisd.ca/biodiv/absing/brief/absing_briefe.html>.

¹⁰⁹ See Article 14 bis in Draft Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits arising from their Utilization to the Convention on Biological Diversity, UN Doc. UNEP/CBD/COP/10/5/Add.5 Annex I (2010).

¹¹⁰ A comparable institution can be found in the context of the World Bank family: the Compliance Advisor/Ombudsman (CAO) of the International Finance Corporation. See the CAO website at <<http://www.cao-ombudsman.org/>>. For a discussion, see E. Morgera, *Human Rights Dimensions of Corporate Environmental Accountability*, in P.M. Dupuy, F. Francioni, and U. Petersmann, eds., *Human Rights, Investment Law and Investor-State Arbitration*, 511 (2009).

In light of the innovative provisions of the Nagoya Protocol on indigenous and local communities, this section discusses the relevance of several other decisions of COP-10 that are related to Article 8(j) of the CBD as a crosscutting element for the coherent implementation of the convention. This examination provides an opportunity to further discuss the evolution of the CBD regime, focusing on the influence of the UN Declaration on the Rights of Indigenous Peoples (UNDRIP) and examining the potential importance of future work in differentiating indigenous peoples from local communities under the convention.¹¹¹

The CBD has emerged as the ‘primary instrument’ and the preferred international forum for indigenous and local communities to express their interests and demands for the protection of their traditional knowledge,¹¹² particularly within the CBD Working Group on Article 8(j), which affords community representatives broad participation rights.¹¹³ The work of the CBD on indigenous and local communities is founded on Article 8(j), which, with a significantly qualified formulation, calls on parties to encourage the equitable sharing of the benefits arising from the utilization of the knowledge, innovations, and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity.¹¹⁴ Traditional knowledge is not defined, although it is understood as the knowledge of useful properties of biological resources that is attributed to a community as a whole, notwithstanding the differences in the dissemination of knowledge from one community to another, and that is preserved for generations and transmitted orally.¹¹⁵

While the text of the CBD carefully avoids the use of the term ‘right’ or cross-references to human rights instruments,¹¹⁶ successive COP decisions have gradually explored rights-based dimensions of biodiversity policy making.¹¹⁷ COP-10 referred

¹¹¹ For a full discussion of the CBD COP-10 outcomes for indigenous and local communities, see the report on indigenous peoples by E. Morgera in this issue of *Yearbook*.

¹¹² Meyer, *supra* note 5 at 41-42; B. Richardson, *Indigenous Peoples, International Law and Sustainability* 10 R.E.C.I.E.L. 1 at 8 (2001).

¹¹³ Decision IV/9 on Implementation of Article 8(j) and Related Provisions, Doc. CBD (1998), which established the Working Group on Article 8(j), calls for participation of indigenous and local communities ‘to the widest possible extent ... in accordance with the rules of procedure’ (at para. 2). In practice, this rule has resulted in the establishment of enhanced procedural rights for representatives of indigenous and local communities in the CBD processes. In the Working Group on Article 8(j), these representatives are allowed to take the floor on equal footing with parties and in the ABS negotiations their textual proposals were tabled, if supported by at least one CBD party. A departure from this good practice model, however, was witnessed during the final days of the ABS negotiations in Nagoya, when a series of traditional knowledge-related issues were addressed in a closed group composed of CBD parties only. See *Summary of the Tenth Conference of the Parties to the Convention on Biological Diversity*, *supra* note 73.

¹¹⁴ CBD, *supra* note 1, Article 1, refers to ‘the conservation of biological diversity and the sustainable use of its components.’ It should be noted, however, that the text of the convention refers inconsistently to the sustainable use of ‘biodiversity’ or of ‘biological resources.’ See S. Johnston, *Sustainability, Biodiversity and International Law*, in M. Bowman and C. Redgwell, eds., *International Law and the Conservation of Biological Diversity* 51 at 56 (1996).

¹¹⁵ Meyer, *supra* note 5 at 38.

¹¹⁶ Birnie, Boyle, and Redgwell, *supra* note 8 at 626-28.

¹¹⁷ Notably, the work programs on Article 8(j), on protected areas, and on forest biodiversity (Programme of Work on the Implementation of Article 8(j) and Related Provisions of the Convention on Biological Diversity, adopted in CBD Decision V/16 on Article 8(j) and Related Provisions, Doc. CBD UNEP/CBD/COP/5/23 (2000), Annex; Programme of Work on Protected Areas, adopted by CBD COP Decision VII/28 on Protected Areas, Doc. CBD UNEP/CBD/COP/7/21 (2004), Annex; and Expanded Programme of Work on Forest

to the UNDRIP in the preamble of the Nagoya Protocol and called for ‘taking note as appropriate’ of the UNDRIP in implementing the Strategic Plan for Biodiversity 2011-20¹¹⁸ and the program of work on protected areas.¹¹⁹ Still, the CBD COP has not fully endorsed UNDRIP-inspired language, notably demonstrating the lack of an unqualified reliance by CBD parties on PIC, as underscored earlier in this article.

As the implications of Article 8(j) have so far been mostly discussed in the context of the ABS negotiations,¹²⁰ the conclusion of the Nagoya Protocol has created the policy space for the COP to shift its focus to other traditional knowledge-related issues, namely customary use. This issue is expected to be addressed in the new multi-year program of work on Article 8(j), with a view to developing further guidance on sustainable customary use and related incentive measures for indigenous and local communities and to considering measures to increase communities’ engagement at the national and local levels in the implementation of Article 10 (on the sustainable use of biodiversity) and the ecosystem approach. The COP has thus tasked the Working Group on Article 8(j) to develop a strategy to integrate sustainable use, particularly customary use, as a crosscutting issue into all CBD work programmes and thematic areas, beginning with the work programme on protected areas.¹²¹ This mandate seems particularly significant in light of the considerable evolution of the concept of benefit sharing, as it applied to the relationship between a state and communities within its territory under other work programmes and guidelines adopted by the CBD COP prior to COP-10.¹²²

This area of future work of the CBD also seems particularly relevant in light of recent developments in other fora, such as in the UN Forum on Forests, where attention has focused on benefit sharing from forest conservation and sustainable use as a key to community livelihoods¹²³ as well as in human rights bodies concerned with natural resource development led by private companies in areas traditionally occupied by indigenous peoples.¹²⁴

It is also notable that the COP implicitly decided to explore for the first time the dividing line between indigenous and local communities. The expression ‘indigenous and local communities’ so far has been taken as an indivisible whole under the CBD, without reference being made to ‘indigenous peoples’ as the subjects

Biological Diversity, COP Decision VI/22 on Forest Biological Diversity, Doc. CBD UNEP/CBD/COP/6/20 (2002)).

¹¹⁸ Decision X/2, *supra* note 47 at para. 4.

¹¹⁹ Decision X/31 on Protected Areas, Doc. CBD UNEP/CBD/COP/10/27 (2010) at para. 1(i).

¹²⁰ Although the ABS negotiations were held within the CBD Working Group on ABS, the international ABS regime also dominated negotiations at the CBD Working Group on Article 8(j) and related provisions. See recently *Summary of the Sixth Meeting of the Ad Hoc Open-ended Intersessional Working Group on Article 8(j) and Related Provisions of the CBD*, 2-6 November 2009 9(482) Earth Negotiations Bulletin (2009).

¹²¹ Decision X/43 on Multi-year Programme of Work on the Implementation of Article 8(j) and Related Provisions of the Convention on Biological Diversity, Doc. CBD UNEP/CBD/COP/10/27 (2010) at para. 8.

¹²² Morgera and Tsioumani, *supra* note 13 at 159-65.

¹²³ UN Forum on Forests, *Resolution on Forests for People, Livelihoods and Poverty Eradication* (4 February 2011), <http://www.un.org/esa/forests/pdf/session_documents/unff9/Adopted%20resolution%20at%20530PM%20%204%20Feb%202011.pdf>.

¹²⁴ Inter-American Court of Human Rights, *Case of the Saramaka People v. Suriname*, Judgment of 28 November 2007 Series C, No. 172; African Commission on Human and Peoples’ Rights, *Communication no. 276/2003 on the Centre for Minority Rights Development (Kenya) and Minority Rights Group International on behalf of Endorois Welfare Council v Kenya* (2010).

protected by specific international human rights instruments.¹²⁵ In an unprecedented move, COP-10 convened an ad hoc expert group meeting of local community representatives to identify the common characteristics of local communities and to gather advice on how local communities can more effectively participate in the convention processes, including at the national level.¹²⁶ In this respect, it should be noted that in 2010 the UN Permanent Forum on Indigenous Issues called on the CBD parties to adopt the UNDRIP's terminology 'indigenous peoples and local communities.'¹²⁷ This can indeed be considered overdue under the CBD, as this terminology has already been adopted by the UN General Assembly,¹²⁸ the UN Forum on Forests,¹²⁹ and under the international climate change regime.¹³⁰

While human rights language and key concepts are not yet fully integrated into the CBD, it should be emphasized that certain key CBD instruments and guidelines have already been relied upon extensively by human rights instruments and practices. The Expert Mechanism on the Rights of Indigenous Peoples has stressed the link between PIC, benefit sharing, and mitigation measures in the context of large-scale natural resource extraction on indigenous peoples' territories or in the creation of national parks and forest and game reserves, underscoring the importance of the CBD work program on protected areas and the Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment Regarding Developments Proposed to Take Place, or Which Are Likely to Impact on Sacred Sites, and Lands, and Waters Traditionally Occupied or Used by Indigenous People and Local Communities (Akwé: Kon Guidelines).¹³¹ The special rapporteur on the human rights and fundamental freedoms of indigenous peoples, James Anaya, has clearly indicated that the CBD concepts and guidelines can significantly contribute to fleshing out standards for corporate accountability with respect to indigenous rights in the context of the due diligence framework proposed by the UN Special Representative on Human Rights and Business.¹³² Anaya thus emphasized that social and environmental impact studies should be conducted on behalf of companies by independent experts under the supervision of the state, specifically referring to the

¹²⁵ Meyer, *supra* note 5 at 38.

¹²⁶ Decision X/43 on Multi-Year Programme of Work on the Implementation of Article 8(j) and Related Provisions of the Convention on Biological Diversity, Doc. CBD UNEP/CBD/COP/10/27 (2010) at para. 21.

¹²⁷ *Report of the Ninth Session of the UN Permanent Forum on Indigenous Issues (19-30 April 2010)*, UN Doc. E/2010/43-E/C.19/2010/15 (2010).

¹²⁸ UNGA Resolution 65/178 on Agriculture Development and Food Security (2010).

¹²⁹ UN Forum for Forests, *supra* note 123.

¹³⁰ In the context of safeguards for REDD+, see Decision 1/CP.16 on Outcome of the Work of the Ad Hoc Working Group on Long-Term Cooperative Action under the Convention, Doc. Doc. FCCC/CP/2010/7/Add.1 (2010), Appendices I to III.

¹³¹ Akwé: Kon Voluntary Guidelines for the Conduct of Cultural, Environmental and Social Impact Assessment Regarding Developments Proposed to Take Place, or Which Are Likely to Impact on Sacred Sites, and Lands, and Waters Traditionally Occupied or Used by Indigenous People and Local Communities, *supra* note 38; *Expert Mechanism on the Rights of Indigenous Peoples*, Progress Report on the Study on Indigenous Peoples and the Right to Participate in Decision Making, UN Doc. A/HRC/15/35 (2010); and *Report of the Expert Mechanism on the Rights of Indigenous Peoples on Its Third Session*, Geneva, UN Doc. A/HRC/15/36 (2010).

¹³² *Report of the Special Representative of the Secretary-General on the Issue of Human Rights and Transnational Corporations and Other Business Enterprises*, 'Business and Human Rights: Towards Operationalizing the 'Protect, Respect and Remedy' Framework, UN Doc. A/HRC/11/13 (2009).

CBD's Akwé: Kon Guidelines.¹³³ Similar recommendations can also be found in the context of the implementation mechanism of the Organisation for Economic Co-operation and Development's Guidelines on Multinational Companies.¹³⁴

VI. THE NEW STRATEGIC PLAN: VISION, COHERENCE, AND MONITORING?

While the work of the CBD on traditional knowledge is set to expand and become mainstreamed, the new strategic plan for the period 2011-20 – one of COP-10 main outcomes – aims to serve as an overarching framework for coordinating all of the activities of the CBD under its program areas, for assisting in mainstreaming biodiversity across all human activities, and also for valuing ecosystem services and monitoring the progress in implementation by facilitating the setting of targets at different levels that are adapted to regional, national, and sub-national contexts and capacities.¹³⁵

As a key instrument with the potential to ensure a coherent application of the CBD regime, the strategic plan, entitled 'Living in Harmony with Nature,' comprises a shared vision, a mission, strategic goals, and targets that are expected to inspire broad-based action by the CBD parties and stakeholders. The vision states that by 2050 biodiversity will be valued, conserved, restored, and wisely used, maintaining ecosystem services, sustaining a healthy planet, and delivering benefits essential for all people. The mission provides for taking effective and urgent action to halt the loss of biodiversity so that by 2020 ecosystems will be resilient and will continue to provide essential services, thereby securing the planet's variety of life and contributing to human well-being and poverty eradication. It will achieve this goal through, *inter alia*, restoration, biodiversity mainstreaming, and the application of the precautionary approach. Its most notable strategic goals and headline targets will urge parties to: integrate biodiversity values not only into national and local planning (as already mandated by CBD Article 6) but also into national accounting; ensure restoration and the safeguarding of essential ecosystem services such as those related to water, health, livelihoods, and well-being; eliminate, phase out, or reform incentives, including subsidies, that are harmful to biodiversity; and develop and apply positive incentives for the conservation and sustainable use of biodiversity, taking into account national socio-economic conditions.

While the strategic plan may be a useful tool to monitor progress in implementation and spur national and international action, only three of its targets are accompanied by a numerical indication. Target 5 provides for habitat change (including deforestation) to be reduced by half or more; Target 11 provides that by 2020 at least 17 percent of terrestrial and inland water, and 10 percent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, will be conserved through effective and equitable management, ecological representation, and well-connected systems of protected areas and other effective area-based conservation measures; and Target 15 provides that by 2020 ecosystem resilience and the contribution of biodiversity to carbon stocks will be enhanced through conservation and restoration, including restoration of at least 15 percent of

¹³³ James Anaya, *Report of the Special Rapporteur on the Situation of Human Rights and Fundamental Freedoms of Indigenous People*, UN Doc. A/HRC/15/37 (2010).

¹³⁴ *UK National Focal Point to the OECD Guidelines*, Final Statement dated 25 September 2009 on the complaint from Survival International against Vedanta.

¹³⁵ See *Summary of the Tenth Conference of the Parties to the Convention on Biological Diversity*, *supra* note 73, Analysis.

the degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification. While these three targets refer to land and water areas where measurement is immediately possible, it may be argued that other targets have an built-in quantitative element,¹³⁶ which may allow in fact for a quantitative analysis of progress.¹³⁷ Furthermore, the COP seems to have endorsed the TEEB approach in the strategic plan since it requests the Secretariat to build on the results of the study in order to further develop implementation tools for the integration of economic aspects of biodiversity and ecosystem services and to facilitate implementation and capacity building for such tools.¹³⁸

Although some commentators have criticized the strategic plan for not including any binding commitments on conservation,¹³⁹ the criticism appears misconstrued as the plan was conceived and negotiated solely to serve as an inspirational document and as a strategic framework for action.¹⁴⁰ In addition, its focus lies in the implementation of all three of the CBD objectives rather than focusing solely on biodiversity conservation. A more valid critique is that the strategic plan provides only limited guidance for developing specific measures and tools, including legislative instruments, to enhance national implementation of the CBD.

Still, two elements can be identified in the strategic plan that provide hope both for facilitating national implementation and for initiating some kind of international oversight of CBD implementation. First, the strategic plan calls for regional and sub-regional workshops on updating and revising NBSAPs, mainstreaming biodiversity, enhancing the clearinghouse mechanism as a fundamental tool for information sharing, and mobilizing financial resources. Second, the strategic plan calls for an analysis/synthesis of national, regional, and other actions to enable the WGRI to assess their contribution towards the global targets.¹⁴¹ This analysis would be coupled with the possibility for the COP to develop further guidance and propose options for the establishment of mechanisms to support parties in their efforts to develop national indicators and associated biodiversity monitoring and reporting systems, in support of setting targets, according to national priorities and capacities, and in the monitoring of progress towards them.¹⁴² In addition, the decision on the CBD's multi-year program of work further emphasizes implementation and monitoring, by placing on the agenda a review of the progress in the implementation of both the strategic plan and the resource mobilization strategy (discussed later in this article) and in the provision of assistance and support to

¹³⁶ For instance, Target 8 states 'pollution has been brought to levels that are not detrimental for ecosystem functioning (which may be understood as below critical N loads, thus being determined objectively)'; and Target 6 states 'all stocks are harvested sustainably by 2020'.

¹³⁷ We are grateful to David Cooper for having drawn our attention to this point.

¹³⁸ Decision X/2, *supra* note 47 at paras. 7 and 17(e).

¹³⁹ S. Harrop, *Living in Harmony with Nature? Outcomes of the 2010 Nagoya Conference of the Convention on Biological Diversity* 23 J. Env't'l L. 117 at 122 (2011); and G. Monbiot, *A Ghost Agreement*, posted on 1 November 2010, <<http://www.monbiot.com/2010/11/01/a-ghost-agreement/>>.

¹⁴⁰ It was never supposed to be legally binding. Rather, its purpose is to 'promote effective implementation of the Convention through a strategic approach ... that will *inspire* broad-based action by all Parties and stakeholders.' Decision X/2, *supra* note 47 at para. 1 [emphasis added].

¹⁴¹ *Ibid.* at paras. 17(a) and (b).

¹⁴² Decision X/7 on Examination of the outcome-oriented goals and targets (and associated indicators) and consideration of their possible adjustment for the period beyond 2010, Doc. CBD UNEP/CBD/COP/10/27 (2010) at para. 5(c). We are grateful to David Cooper for having drawn our attention to this point.

developing country parties. COP-12 (which is to be held in 2014) will in turn further consider how the CBD's implementation contributes to the achievement of the Millennium Development Goals.¹⁴³ All of these developments may inaugurate a more focused process of compliance monitoring at the international level.

VII. FINANCE-RELATED DECISIONS AND THE PRINCIPLE OF COMMON BUT DIFFERENTIATED RESPONSIBILITIES AT A CROSSROADS

Questions related to coherence, effective implementation, and monitoring have also characterized recent debates on funding under the CBD. The continuous expansion of activities under the convention has increased the demands for adequate financial resources, capacity building, and technology transfer to enable implementation by developing countries and the main holders of global biodiversity. The finance-related provisions of the CBD are the core of the principle of common but differentiated responsibility as it is applied to biodiversity. The convention includes a specific obligation for developed country parties to provide new and additional financial resources to enable developing country parties to meet the agreed full incremental implementation costs of complying with commitments under the CBD.¹⁴⁴ As opposed to other MEAs, the CBD contains quite specific obligations for developing countries in regard to the national funding of activities implementing the convention.¹⁴⁵ Nonetheless, inadequate provision of financial resources required for effective implementation of the convention has been one of the main reasons why the 2010 biodiversity target has failed to be reached.

Financial cooperation under the CBD is thus seen as an expression of the common concern for biodiversity conservation.¹⁴⁶ The increased focus on implementation under the convention has drawn more attention to the fulfilment of the financial provisions of the CBD, whereas until 2010 the CBD COP had not devoted much attention to this question. Notwithstanding the fact that the relevant provisions of the CBD are crafted in clearly mandatory language, the COP has not yet provided opinions or guidance about how individual parties are to report on their compliance with the financial provisions. The COP has only offered an overview of the aggregate status of financing for biodiversity and guidance for a variety of funding stakeholders.¹⁴⁷ As opposed to other MEAs, the CBD COP has neither listed indications from developing countries (in their national reports) in regard to the

¹⁴³ Decision X/9, *supra* note 70. On the link between the CBD and the Millennium Development Goals, see C. Lasen Diaz, *Biodiversity for Sustainable Development: The CBD's Contribution to the MDGs* 15 R.E.C.I.E.L. 30 (2006).

¹⁴⁴ CBD, *supra* note 1, Article 20. Note that Article 20(4) provides: 'The extent to which developing country Parties will effectively implement their commitments under this Convention will depend on the effective implementation by developed country Parties of their commitments under this Convention related to financial resources and transfer of technology and will take fully into account the fact that economic and social development and eradication of poverty are the first and overriding priorities of the developing country Parties.' This has been interpreted as a statement of fact by Chandler, *supra* note 10 at 173-174; while Birnie, Boyle and Redgwell, *supra* note 8 at 633-34, emphasize that the effect of this unprecedented provision is to subject developing countries' policies to international biodiversity policies, to the extent that they receive funding under the convention.

¹⁴⁵ Xiang and Meehan, *supra* note 44 at 216, referring to CBD, *supra* note 1, Articles 8(m), 9(e), and 20(1).

¹⁴⁶ Xiang and Meehan, *supra* note 44 at 212.

¹⁴⁷ *Ibid.* at 215 and 218-19.

proposed projects for financing under the convention nor proceeded to determine the joint funding needs of developing countries.¹⁴⁸

This approach, however, may be set to change. COP-10 witnessed arduous debates on the implementation of the resource mobilization strategy, the role of innovative financial mechanisms, and the state of finances under the CBD, as well as on related questions of capacity for implementation and fairness in the setting of international goals. As noted earlier in this article, consensus on a strong finance-related package was seen as a precondition for reaching agreement on the strategic plan by developing countries.

COP-10 engaged in the review of the resource mobilization strategy, which was adopted in 2008 to achieve multiple aims, including to improve the information base on funding needs, gaps, and priorities; to strengthen national capacities for resource utilization; to strengthen existing financial institutions; to explore new and innovative financial mechanisms; to build capacity for resource mobilization and promote South-South cooperation as a complement to North-South cooperation; and to enhance the global engagement for resource mobilization.¹⁴⁹ The review proved particularly contentious in two respects: (1) the establishment of a specific mechanism to monitor implementation of the strategy as a means to closely check how developed countries fulfil their financial responsibilities under the convention and (2) the more systematic use of innovative financial mechanisms.

Developed countries' uneasiness about the possible monitoring of their compliance with financial cooperation provisions emerged in the context of discussions on the definition of targets and indicators for this purpose. Compromise was reached in the end on providing a 'roadmap' for the adoption of targets at COP-11, coupled with the immediate adoption of indicators. These indicators already include ways to monitor biodiversity funding, by looking into: aggregated financial flows of biodiversity-related funding per annum, avoiding double-counting (the latter qualification may be particularly significant for the use of climate financing used to achieve biodiversity co-benefits); the amount of funding provided to the GEF and allocated to biodiversity; the number of international financing institutions and other international organizations with biodiversity as a crosscutting policy; the amount of financial resources from developed to developing countries to contribute to the CBD objectives; and the resources mobilized from the removal, reform, or phase out of incentives harmful to biodiversity, including subsidies (as promoted by the new strategic plan).

Increased attention to the actual implementation of funding obligations was then coupled with increased emphasis on explicitly conditioning developing countries' compliance with new and more ambitious targets upon the provision of international funds. In this respect, the strategic plan includes a headline target that makes reaching the other targets dependent on the provision of financial resources. According to Target 20, by 2020 the mobilization of financial resources for effectively implementing the Strategic Plan 2011-2020 from all sources should increase substantially from the current levels. This target will be subject to changes contingent on assessments of the resource needs of the parties. As a result, the actual realization of financial cooperation under the CBD may increasingly become the subject of more intense and formalized international scrutiny.

¹⁴⁸ *Ibid.* at 221.

¹⁴⁹ Decision IX/11 on Review of implementation of Articles 20 and 21, Doc. CBD UNEP/CBD/COP/9/29 (2008).

Innovative financial mechanisms are under consideration across international environment and development processes, with a view to complementing public funding through market-based mechanisms and other involvement by non-state actors. To some extent, this debate builds upon the experience of the climate change regime. Thus, the CBD COP considered the creation of a ‘green development fund’ modelled after the Clean Development Mechanism to reward trade-certified ‘land areas managed in compliance with the CBD,’ in accordance with the requirements for offsets and restoration for the private sector.¹⁵⁰ The proposal, however, encountered the opposition of developing countries, which wished to ensure that innovative financial mechanisms would supplement, and not replace, public funding under the CBD’s financial mechanism. The latter was reflected in the decision on the resource mobilization strategy,¹⁵¹ while the other draft text on innovative financial mechanisms was withdrawn altogether during the final plenary.¹⁵²

Climate-financing opportunities for biodiversity-related work were also discussed with a view to allowing concrete synergies between the climate change and the CBD regimes, both at the international and national level. In terms of international synergies, attention focused on providing guidance to the GEF in identifying projects that enhance cooperation among the Rio conventions, such as projects that demonstrate the role that protected areas play in addressing climate change; synergy-oriented programmes to conserve and sustainably manage all ecosystems that also contribute to poverty eradication; and projects related to ecosystem conservation, the restoration of degraded lands and marine environments, and overall ecosystem integrity, which take into account climate change impacts.¹⁵³ A monitoring element was also built in to the system – namely, parties further requested the CBD Secretariat, in collaboration with the GEF, to identify indicators to measure and facilitate reporting on the achievement of social, cultural, and economic benefits for biodiversity, climate change, and combating desertification and to develop tools to evaluate and reduce the negative impacts of mitigation and adaptation activities on biodiversity.¹⁵⁴ In addition, CBD parties called upon the UNFCCC COP to support projects related to adaptation and mitigation in protected areas, so that national mitigation and adaptation actions that involve the expansion of protected-area networks can receive financial and technical assistance through climate-related

¹⁵⁰ See *Summary of the Tenth Conference of the Parties to the Convention on Biological Diversity*, *supra* note 73 at 27, Analysis. The proposal was included in Draft Decision submitted by the Chair of Working Group II: Policy Options Concerning Innovative Financial Mechanisms, UN Doc. UNEP/CBD/COP/10/WG.2/L.46 (2010) at para. 5, <<http://www.cbd.int/cop10/in-session>>. For the details of the proposed green development fund, see *GDM 2010 Initiative Report*, UN Doc. UNEP/CBD/COP/10/INF/15 (2010).

¹⁵¹ Decision X/3 on the Strategy for Resource Mobilization in Support the Achievement of the Convention’s Three Objectives, Doc. CBD UNEP/CBD/COP/10/27 (2010) at A: Concrete activities and initiatives including measurable targets and/or indicators to achieve the strategic goals contained in the strategy for resource mobilization and on indicators to monitor the implementation of the Strategy. This reflects more general opposition to the concept of innovative funding mechanisms by developing countries. See, for instance, UNGA Resolution A/65/RES/1 on Keeping the Promise: United to Achieve the Millennium Development Goals (2010) at paras. 61-62.

¹⁵² *Summary of the Tenth Conference of the Parties to the Convention on Biological Diversity*, *supra* note 73 at 13-14.

¹⁵³ Decision X/24 on Review of Guidance to the Financial Mechanism, Doc. UNEP/CBD/COP/10/27 CBD (2010), Annex, section 4.23, CBD (2010).

¹⁵⁴ Decision X/25 on Additional Guidance to the Financial Mechanism, Doc. UNEP/CBD/COP/10/27 (2010) at para. 22.

financial mechanisms.¹⁵⁵

Further guidance was also provided for national action, once again focusing on protected areas. Through the decision on protected areas, the COP invited CBD parties to explore how funding opportunities under adaptation and mitigation strategies could contribute to the implementation of the CBD work programme on protected areas while enhancing co-benefits for biodiversity, adaptation, and mitigation. Parties were further encouraged to finance the conservation and management of protected-area systems in contributing to carbon sequestration and the maintenance of carbon stocks as well as to ecosystem-based approaches to adaptation. Given concerns that the search for climate funding may detract from biodiversity-focused management, however, cautionary language was added on recognizing that biodiversity conservation remains the primary objective of protected-area systems. Parties were further called upon to link improved design and management approaches for comprehensive and integrated protected-area systems (including buffer zones, corridors, and restored landscapes) into national strategies and action plans for addressing climate change.¹⁵⁶

VIII. CLIMATE AND BIODIVERSITY: INWARD AND OUTWARD MAINSTREAMING

The international climate change regime has had an increasing influence on the discussions on innovative regulatory and funding approaches in the CBD processes. In addition, the CBD COP has been increasingly active in identifying threats to biodiversity arising from the impacts of climate change and of climate change response measures as well as in highlighting biodiversity's value in the fight against climate change. In 2004, it identified the ecosystem approach as the tool to facilitate mitigation and adaptation while ensuring mutual supportiveness between the UN Framework Convention on Climate Change (UNFCCC)¹⁵⁷ and the CBD.¹⁵⁸ COP-10's decision on biodiversity and climate change includes several innovative guidelines for CBD parties to assess and tackle the interactions between climate change and biodiversity, particularly relating to an ecosystem-based approach to adaptation.¹⁵⁹ Overall, COP-10 guidance aims to inject a more environmentally holistic and people-centred approach into state practice in tackling climate change, through guarantees for conservation and sustainable use, the inclusion of traditional knowledge, and the involvement of communities in decision making and implementation.¹⁶⁰

Climate change has thus effectively become a key crosscutting component in the work of the CBD in two respects: (1) as a threat to biodiversity (the negative impacts of climate change, and of climate responses, on biodiversity and the livelihood of communities) and (2) as a response that contributes to biodiversity conservation and sustainable use (mitigation and adaptation measures with biodiversity co-benefits).¹⁶¹ In light of other climate-related decisions taken by COP-10, the impacts of climate change and of responses to climate change that pose

¹⁵⁵ Decision X/31, *supra* note 119.

¹⁵⁶ *Ibid.*, at paras. 15 and 14(e).

¹⁵⁷ United Nations Framework Convention on Climate Change, 1771 UNTS 107 (1992).

¹⁵⁸ Decision VII/15 on Biodiversity and Climate Change, Doc. CBD UNEP/CBD/COP/7/21 (2004) at para. 8; UN Framework Convention on Climate Change, 31 I.L.M. 849 (1992) [UNFCCC]

¹⁵⁹ Decision X/33 on Biodiversity and Climate Change, Doc. CBD UNEP/CBD/COP/10/27 (2010) at paras. 8 and 17.

¹⁶⁰ See Morgera, *supra* note 12 at 95.

¹⁶¹ We are grateful to Jaime Webbe, CBD Secretariat, for drawing our attention to this point.

significant threats to biodiversity are now set to be addressed throughout all CBD activities, as are the opportunities for mitigation and adaptation measures to act as a new powerful vehicle for the application of the ecosystem approach.¹⁶² Nonetheless, challenges in fully integrating biodiversity concerns and approaches in the international climate change regime and other relevant international processes remain. To discuss these tensions and to further explore issues related to the evolution of the CBD regime, attention is drawn to the COP-10 decisions on cooperation with the international climate change regime (including in relation to forests), biofuels, the moratorium on geo-engineering, and financing.¹⁶³

Increased cooperation with the international regime on climate change was hotly debated in 2010, with the result that a proposed joint work programme among the Rio conventions was eventually downgraded to the phased development of ‘joint activities’ related to ecosystem-based approaches to mitigation and adaptation, land degradation, oceans, protected areas, and forests.¹⁶⁴ In addition, the CBD Secretariat received an express mandate to provide advice on the application (rather than on the definition) of relevant safeguards for biodiversity for reducing emissions from deforestation and forest degradation, conserving forest-carbon stocks, sustainably managing forests, and enhancing forest-carbon stocks (REDD+) – for approval at CBD COP-11 and based on consultations with the CBD parties and the participation of indigenous and local communities – and to identify possible indicators to assess the contribution of REDD in reaching the CBD’s objectives, in addition to assessing the potential mechanisms for monitoring impacts on biodiversity.¹⁶⁵ The importance of the convention’s role in the evolution of the international climate change regime has thus been recognized by the CBD parties (which basically coincide with the parties to the UNFCCC, with the exception of the United States), with a specific focus on the application of the climate change regime, coupled with caution not to prejudge the complex negotiations in the climate forum. The latter explains why parties decided not to mandate the CBD to contribute to the definition of the standards but only to intervene at the successive stage of their implementation, so as to allow the conclusion of negotiations under the climate change regime. This recognition is based on the capacity of the CBD regime to provide tools and approaches to ensure both that the climate response measures, particularly REDD+, do not undermine the

¹⁶² The following decisions, taken together, have fulfilled the COP-9 mandate to integrate climate change considerations into each work program of the CBD where relevant and appropriate. Decision IX/16A on Biodiversity and Climate Change, Doc. CBD UNEP/CBD/COP/9/29 (2008) at para. 1; Decision X/30 *Mountain biological diversity*, para. 5, CBD (2010); Decision X/28 on Inland Waters Biodiversity, Doc. CBD UNEP/CBD/COP/10/27 (2010) at paras. 10(l) and 26(c), 26(a)-(b) and 27 and 29; Decision X/29 on Marine and Coastal Biodiversity, Doc. CBD UNEP/CBD/COP/10/27 (2010) at paras. 66, 67 77, and 7, 8(b), 13(d), and (f); Decision X/31, *supra* note 117 at paras. 14(a)-(d) and (f), 16, and 19(c); Decision X/34 on Agricultural Biodiversity, Doc. CBD UNEP/CBD/COP/10/27 (2010) at para. 5(a); Decision X/38 on Invasive Alien Species, Doc. CBD UNEP/CBD/COP/10/27 (2010) at para. 9(a); Decision X/2, *supra* note 47; and Decision X/4, *supra* note 69 at para. 6. For earlier discussions on biodiversity and climate change in the context of the CBD, see *Review of the Interlinkages between Biological Diversity and Climate Change, and Advice on the Integration of Biodiversity Considerations into the Implementation of the United Nations Framework Convention on Climate Change and Its Kyoto Protocol*, Doc. UNEP/CBD/SBSTTA/9/11 (2003).

¹⁶³ This section builds on Morgera, *supra* note 12.

¹⁶⁴ Decision X/33, *supra* note 159 at para. 13.

¹⁶⁵ *Ibid.* at para. 9(g)-(h). Both mandates were qualified by reference to collaboration with the members of the Collaborative Partnership on Forests and the need not to pre-empt future decisions under the UNFCCC.

conservation and sustainable use of biodiversity but, rather, actively contribute to them and that the role of indigenous and local communities in the conservation and sustainable use of forest biodiversity is recognized and guaranteed.¹⁶⁶

This dual contribution is further reflected in the recognition of biodiversity-related and indigenous and local communities' concerns related to biofuel production and use. The COP succeeded in including in the understanding of 'biodiversity-related socio-economic conditions that could be impacted on by biofuel production and use' – an expression that delimits the CBD's role *vis-à-vis* biofuels – 'the consideration of land tenure and resource rights, including water, where relevant for the CBD implementation, and in particular the implications for indigenous and local communities.'¹⁶⁷ The COP accordingly called upon parties to develop policies, supportive measures, environmentally sound technologies, and impact assessments to minimize negative impacts on such broadly defined biodiversity-related socio-economic conditions.¹⁶⁸ Furthermore, following intense negotiations, COP-10 agreed to urge governments to apply the precautionary approach to the release of synthetic life, cells, or genomes into the environment, acknowledging the parties' entitlement, in accordance with domestic legislation, to prevent such release.¹⁶⁹ Thus, while several parties have wished to limit the scope of the CBD's normative work on biofuels,¹⁷⁰ the CBD COP has demonstrated its capacity to make progress on the politically charged question of land tenure and resource rights as well as its readiness to tackle emerging issues such as synthetic biology in this context, thereby demonstrating the importance of its specialized contribution to the international debate occurring in the context of other fora.

Yet another example of the evolutionary nature of the CBD is the moratorium on geo-engineering adopted by COP-10,¹⁷¹ which follows upon a previously

¹⁶⁶ The United Nations Conference on Climate Change, which was held in December 2010 in Cancun, Mexico, adopted a decision on REDD+ containing reference to 'safeguards,' such as: respect for the knowledge and rights of indigenous peoples and members of local communities, by taking into account relevant international obligations, national circumstances and laws; the need for the full and effective participation of relevant stakeholders, in particular, indigenous peoples and local communities in implementing the decision; and the conservation of natural forests and biodiversity, and incentives for the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits, accompanied by a footnote on taking into account the need for sustainable livelihoods of indigenous peoples and local communities and their interdependence on forests in most countries, reflected in the UNDRIP, *supra* note 92, as well as in International Mother Earth Day. Decision 1/CP.16, *supra* note 123, Appendix III.C on policy approaches and positive incentives on issues relating to reducing emissions from deforestation and forest degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries, and Annex I at 1(d) and 2(e).

¹⁶⁷ Decision X/37 on Biofuels and Biodiversity, Doc. UNEP/CBD/COP/10/27, CBD (2010), at para. 2.

¹⁶⁸ *Ibid.*, at paras. 6, 8 and 10.

¹⁶⁹ *Ibid.* at para. 16.

¹⁷⁰ *Summary of the Tenth Conference of the Parties to the Convention on Biological Diversity*, *supra* note 73 at 21-22.

¹⁷¹ Decision X/33, *supra* note 159 at para. 8(w), which reads: '[T]o ensure, in line with decision IX/16 C on ocean fertilization, in the absence of science-based, global, transparent and effective control and regulatory mechanisms for geo-engineering, and in accordance with the precautionary approach and CBD Article 14, that no climate change-related geo-engineering activities that may affect biodiversity take place, until there is an adequate scientific basis on which to justify them and appropriate consideration of the associated risks for the environment and biodiversity and associated social, economic and cultural impacts, with the exception of small scale scientific research studies that would be conducted in a controlled setting in accordance with Article 3 of the Convention, and only if they are justified by the

established moratorium on the more specific geo-engineering technique known as ocean fertilization.¹⁷² The COP agreed on the precise wording, setting down two cumulative conditions for the lifting of the moratorium (adequate scientific justification and adequate consideration of risks), which are to be interpreted in light of the precautionary approach and the obligations related to impact assessment under CBD Article 14. Similarly to the moratorium on ocean fertilization, there is one exception to the moratorium that is made subject to detailed conditions: small-scale scientific research may be conducted in a controlled setting in accordance with CBD Article 3 (namely, states' responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or areas beyond the limits of national jurisdiction), if it is justified by the need to gather scientific data and is subject to a thorough prior assessment of potential impacts on the environment.¹⁷³ Ultimately, the legal force of the geo-engineering moratorium may become clear in follow-up processes or activities undertaken by the parties to the CBD, individually or collectively,¹⁷⁴ particularly in light of the CBD-led study of the gaps in the international regulatory and monitoring framework on geo-engineering, which complements the moratorium.¹⁷⁵

Overall, notwithstanding significant resistance among certain CBD parties, these developments under the CBD provide, on the one hand, a path for international co-operation on forests, biodiversity, and climate change, with a view to ensuring environmental sustainability in a holistic way, both within and outside the international climate change regime. On the other hand, the guidelines to CBD parties provide pragmatic suggestions, aimed at ensuring the mutually supportive implementation of the obligations of the CBD and of the international climate change regime, whether existing or under development.

Inwardly, climate change considerations can thus be expected to significantly shape the immediate future of the CBD. They have the potential to help establish synergies among the various thematic and crosscutting areas of work of the CBD,¹⁷⁶

need to gather specific scientific data and are subject to a thorough prior assessment of the potential impacts on the environment.'

¹⁷² Decision IX/16 C on Biodiversity and Climate Change, Doc. UNEP/CBD/COP/9/29 CBD (2008) at para. 4, reads: 'Bearing in mind the ongoing scientific and legal analysis occurring under the auspices of the London Convention (1972) and the 1996 London Protocol, [the COP] *requests* Parties and *urges* other Governments, in accordance with the precautionary approach, to ensure that ocean fertilization activities do not take place until there is an adequate scientific basis on which to justify such activities, including assessing associated risks, and a global, transparent and effective control and regulatory mechanism is in place for these activities; with the exception of small scale scientific research studies within coastal waters. Such studies should only be authorized if justified by the need to gather specific scientific data, and should also be subject to a thorough prior assessment of the potential impacts of the research studies on the marine environment, and be strictly controlled, and not be used for generating and selling carbon offsets or any other commercial purposes.'

¹⁷³ Note that concerns have been raised as to whether reference to 'small-scale' can by itself preclude any scientific experimentation. See K. Güssow et al., *Ocean Iron Fertilization: Why Further Research Is Needed* 34 Marine Policy 911 at 915 (2010).

¹⁷⁴ Note in this respect that COP-10 complemented the geo-engineering moratorium by placing follow-up discussions on geo-engineering on the agenda of the CBD COP until the international community agreed on appropriate global mechanism(s) for regulating and monitoring geoengineering. See Decision X/33, *supra* note 159 at paras. 9(n)-(o).

¹⁷⁵ In addition to the study, the COP requested scientific information and the views of indigenous and local communities and other stakeholders on the possible impacts of geo-engineering techniques on biodiversity. See Decision X/33, *supra* note 159 at paras. 9(n)-(o).

¹⁷⁶ Morgera, *supra* note 15 at 154.

achieve biodiversity mainstreaming in policy and measures in which climate change is mainstreamed, and obtain additional funding for CBD implementation from climate-financing initiatives. Outwardly, the added value of the CBD in inputting in the development of the international climate change regime, while actively prevented from influencing negotiations in that context, has been recognized both in terms of facilitating an environmentally holistic approach to climate change and a participatory approach that duly reflects the contributions and concerns of indigenous and local communities.

IX. GAP FILLING IN THE BIOSAFETY REGIME: THE SUPPLEMENTARY PROTOCOL ON LIABILITY AND REDRESS (SUPPLEMENTARY PROTOCOL)

Another element that contributes to the further expansion of the work of the CBD is the adoption by MOP-5 to the Cartagena Protocol on Biosafety (Cartagena Protocol) of the Supplementary Protocol with regard to damage resulting from transboundary movements of living modified organisms (LMOs).¹⁷⁷ The Cartagena Protocol is the main international instrument addressing the risks and possible damage to the environment arising from modern biotechnology.¹⁷⁸ Negotiations on liability and redress were mandated by MOP-1 on the basis of the protocol's Article 27.¹⁷⁹

While it was expected that the Supplementary Protocol would provide an international regime for civil liability, it resulted instead in a two-tiered instrument relying first on an administrative approach and secondarily on national civil liability systems.¹⁸⁰ The administrative approach is fundamentally based on the establishment of a national authority to monitor transboundary movement of LMOs, evaluate damage and threats, and take (or require operators to take) response measures.¹⁸¹

The Supplementary Protocol applies to damage resulting from LMOs that originated in a transboundary movement that started after the Cartagena Protocol's entry into force.¹⁸² With respect to intentional transboundary movements, the protocol applies only to damage resulting from any authorized use of LMOs. The protocol also applies to damage resulting from unintentional transboundary movements and illegal transboundary movements. In addition, the protocol applies only to damage that

¹⁷⁷ Adopted by Decision BS-V/11 on International Rules and Procedures in the Field of Liability and Redress for Damage Resulting from Transboundary Movements of Living Modified Organisms, Doc. UNEP/CBD/BS/COP-MOP/5/17 (2010). See T. R. Young, *Liability and Redress: Supplement to the Cartagena Protocol* 40 *Env'tl Pol'y & L.* 293 (2010); and S. Jungcurt and N. Schabus, *Liability and Redress in the Context of the Cartagena Protocol on Biosafety* 19 *R.E.C.I.E.L.* 197 (2010). Note that the negotiations on the Supplementary Protocol were in effect concluded during the fourth meeting of the Group of Friends of the Co-Chairs, which was held immediately prior to COP/MOP-5. See *Summary of the Fifth Meeting of the Parties to the Cartagena Protocol on Biosafety* 9(533) *Earth Negotiations Bulletin*, <<http://www.iisd.ca/vol09/enb09533e.html>>.

¹⁷⁸ See, generally, R. Mackenzie and B. Eggers, *The Cartagena Protocol on Biosafety* 3 *J. Int'l Econ. L.* 525 (2000).

¹⁷⁹ Which states: 'The Conference of the Parties serving as the meeting of the Parties to this Protocol shall, at its first meeting, adopt a process with respect to the appropriate elaboration of international rules and procedures in the field of liability and redress for damage resulting from transboundary movements of living modified organisms, analyzing and taking due account of the ongoing processes in international law on these matters, and shall endeavour to complete this process within four years.' A Working Group of Legal and Technical Experts on Liability and Redress was established to that end.

¹⁸⁰ Jungcurt and Schabus, *supra* note 177 at 198.

¹⁸¹ Supplementary Protocol, *supra* note 20, Article 5.

¹⁸² *Ibid.*, Article 3.

occurs in areas within the limits of the national jurisdiction of parties. The Supplementary Protocol thus does not apply to issues of inter-state liability,¹⁸³ as it does not affect the rights and obligations of states under the rules of general international law with respect to the responsibility of states for internationally wrongful acts.¹⁸⁴

Importantly, few of the Supplementary Protocol's provisions are drafted in mandatory language, and its implementation is largely left to national legislation – the exact content and elements of which are to be defined by governments on the basis of national circumstances. A causal link 'shall' be established between the damage and the LMO in question in accordance with domestic law,¹⁸⁵ and parties 'shall' require the appropriate operator to take a series of response measures in the event of damage, including to immediately inform the competent authority, evaluate the damage, and take appropriate response measures.¹⁸⁶ Consequently, parties to the Supplementary Protocol are required to provide for rules and procedures to address damage,¹⁸⁷ and response measures in case damage occurs. The exact content of such response measures is to a great degree left to their discretion. The same goes for the application, or not, of civil liability procedures. Similarly, issues related to time limits,¹⁸⁸ financial limits,¹⁸⁹ and financial security¹⁹⁰ are left entirely to national discretion. These provisions exemplify the 'administrative approach' negotiators opted for, which allowed the deadlock in negotiations to be overcome.

The adoption of the Supplementary Protocol formally closed the remaining gap in the legal structure related to biosafety. The flexibility of the administrative approach is designed to facilitate ratifications in order to avoid the situation experienced in other fora where long-negotiated liability instruments failed to enter into force. The Supplementary Protocol, thus, has a good chance for expeditious entry into force. Whether this approach will be useful for implementation remains to be seen, as future parties will have to adopt national legislation on a complex and largely uncharted legal field.

More generally, the approach of the Supplementary Protocol and its reference to 'biodiversity damage' may be relevant beyond the context of biosafety, with regard to other threats to biodiversity addressed by the CBD (for instance, invasive alien species) and to the general consideration of liability and redress under the convention, which is scheduled for COP-12 in 2014,¹⁹¹ with a view to further discussing questions related to the prevention, valuation, and restoration of damage to biodiversity and the establishment and implementation of relevant national regimes.¹⁹²

X. CONCLUSIONS

CBD COP-10 was rightly celebrated as a major success in the history of the convention. It culminated years of significant normative development by the CBD

¹⁸³ See Young, *supra* note 177 at 294.

¹⁸⁴ Supplementary Protocol, *supra* note 20, Article 11.

¹⁸⁵ *Ibid.*, Article 4.

¹⁸⁶ *Ibid.*, Article 5.

¹⁸⁷ *Ibid.*, Article 12 on implementation and relation to civil liability.

¹⁸⁸ *Ibid.*, Article 7.

¹⁸⁹ *Ibid.*, Article 8.

¹⁹⁰ *Ibid.*, Article 10.

¹⁹¹ Decision X/9, *supra* note 70 at para. b(vii). We are grateful to David Cooper for drawing our attention to this point.

¹⁹² Decision IX/21 on Liability and Redress, Doc. CBD UNEP/CBD/COP/9/29 (2008).

COP. COP-10, however, also gave rise to a series of questions related to the future of the convention. How far can the scope of the convention be stretched? How can parties, particularly those with limited financial means, respond to the challenges arising from the proliferation and fragmentation of CBD's process? And, ultimately, is this working mode an efficient way to fulfil the convention's three objectives?

It has been argued for a while that the CBD should move away from policy development and focus on implementation, particularly encouraging concrete results at the national and local level.¹⁹³ With two new protocols and a wide range of decisions adopted at COP-10, country obligations have expanded considerably, particularly for those opting to ratify the two protocols. In addition, because of the new governance structure that will support the Nagoya Protocol, the risk of further fragmentation under the CBD is even higher, if the experience of the Cartagena Protocol is anything to go by. In many respects, the biosafety regime has developed into an independent sub-process that has little, if any, link with the CBD. Institutional fragmentation, however, can be explained and arguably justified on the basis of the very specific and technical nature of the Cartagena Protocol's subject matter. This is not the case for the Nagoya Protocol, whose text maintains strong links to the CBD's three objectives.

Nonetheless, while the Cartagena Protocol and the Nagoya Protocol provide for an international compliance mechanism of their own, there remains a gap in systematically monitoring compliance with the other key obligations of the CBD at the international level. CBD parties have shown signs of readiness to discuss the need for improved international procedures to monitor implementation and compliance, particularly with the financial solidarity obligations of developed countries. It remains to be seen, however, whether this realization will effectively mark the future of the convention.

The CBD Secretariat has arguably 'struggled to have its exact role defined with the recent shift of focus from policy development to implementation.'¹⁹⁴ And, to some extent, it may be difficult for the Secretariat to shift to an implementation-focused mode, without a more decisive role in actively supporting and systematically monitoring national implementation. The series of capacity-building workshops organized in 2010-11 is a useful first step that could lead to a more systematic practice of the Secretariat in providing advisory and capacity-building services on the ground. A renewed and quality-focused effort in monitoring the development of national legislative frameworks and the coherent application of the three objectives of the convention would also be a welcome evolution, which could build on ongoing activities of other international conventions or processes and provide a necessary complement to the quantitative, aggregated monitoring that will emerge from the new strategic plan.¹⁹⁵

Continued normative activity at the international level nonetheless remains necessary, particularly in light of new and emerging threats to biodiversity that can

¹⁹³ Johnston, *supra* note 2 at 229.

¹⁹⁴ Xiang and Meehan, *supra* note 44 at 224.

¹⁹⁵ The current, light-touch, practice of the CBD Secretariat *vis-à-vis* national legislation is in stark contrast with the proactive approach, for instance, of the CITES Secretariat's advisory role on legislation and the CITES National Legislation Project (CITES, *supra* note 104, Resolution Conf. 8.4), which enables the Secretariat to analyze the parties' national legislation and determine whether it is sufficient to adequately implement CITES. For a comparative discussion, see E. Morgera et al., *Implementation Challenges and Compliance in MEA Negotiations*, in P. Chasek and L. Wagner, eds., *The Roads from Rio: Lessons Learned from Twenty Years of Multilateral Environmental Negotiations* [forthcoming 2012].

derive from other international processes. The CBD regime has provided timely and specialized contributions to the international community in a remarkably participatory way – particularly in so far as indigenous and local communities are concerned.¹⁹⁶ Such contributions, including on ocean fertilization, biofuels, and geo-engineering, have resulted in widespread understanding of the threats to biodiversity, of the linkages between biodiversity and other global environmental issues, and of the possible responses. In addition, the CBD COP has found inter-governmental consensus on instruments that push forward broader agendas related to a rights-based approach to environmental policy, such as the CBD Akwé: Kon Guidelines, which are frequently referenced by other international processes. To continue serving these goals, however, the CBD bodies' agenda needs to be prioritized and the COP decisions need to be more concise, better organized, and implementation-friendly.

Ultimately, it is up to the CBD parties to ensure that the CBD regime is coherent and fully implemented. To this end, parties are expected to honour commitments regarding finance and technology transfer, both to make implementation possible and to enable trust building at the international level as well as to collaborate more systematically and in-depth in monitoring exercises. Effective implementation is also dependent on taking advantage of the flexible drafting of the convention to adapt international guidance to national and local circumstances rather than using the open-ended language to cover up inadequate compliance.¹⁹⁷ Furthermore, international negotiators, legal practitioners, and academics still have to fully appreciate the normative work undertaken in the context of the CBD and the extent to which the convention has evolved since its adoption. Albeit in a confusing and partly obscure manner, the CBD COP has successfully developed key convention provisions well beyond the expectations of its drafters and has identified concrete procedural steps for implementation both at the national level and through international cooperation.¹⁹⁸

¹⁹⁶ The CBD regime certainly affords many more opportunities for stakeholder participation in international decision making than other processes, such as the international climate change regime (Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters, UN Doc. ECE/CEP/43 (1998) and the negotiations on the marine environment under the aegis of the UN General Assembly (for anecdotal evidence, see *Highlights of the Fourth Meeting of the Ad Hoc Open-Ended Informal Working Group to Study Issues Relating to the Conservation and Sustainable Use of Marine Biological Diversity beyond Areas of National Jurisdiction* 25(69) Earth Negotiations Bulletin (2 June 2011).

¹⁹⁷ For instance, the non-legally binding character of the 2008 CBD moratorium on ocean fertilization was the root of a dispute between the German ministries for research and for the environment, which eventually ended with the German government admitting that ocean fertilization could not be accepted as a mitigation measure and that scientific projects had to comply with internationally agreed standards. Harald Ginzky, *Ocean Fertilization as Climate Change Mitigation Measure: Considerations under International Law* 7 J. Eur. Env't'l & Planning L. 57 at 57-59, n. 34 (2010).

¹⁹⁸ Of the authors that have discussed the legal significance of multilateral environmental agreements' COP decisions, none has referred to the specific case of the CBD. See, for instance, Robin Churchill and Geir Ulfstein, *Autonomous Institutional Arrangements in Multilateral Environmental Agreements: A Little-Noticed Phenomenon in International Law* 94 A.J.I.L. 623 (2000); Jutta Brunnée, *COPing with Consent: Law-making under Multilateral Environmental Agreements* 15 Leiden J. Int'l L. 1 (2002); Annecoos Wiersema, *The New International Law-Makers? Conferences of the Parties to Multilateral Environmental Agreements* 31 Michigan J. Int'l L. 231 (2009); Malgosia Fitzmaurice, *Consent to Be Bound: Anything New under the Sun?* 74 Nordic J. Int'l L. (2005) 483.

An in-depth understanding of this significant normative evolution seems thus an indispensable foundation for stepping up implementation at all levels. The ecosystem-based approach and some of the key guidelines elaborated under the convention, in particular, can effectively serve as a versatile tool to ensure an integrated application of the three objectives of the CBD as well as mutual supportiveness between the convention and different areas of international and national law.¹⁹⁹

¹⁹⁹ Which can be considered the *raison d'être* of the CBD. See McGraw, *supra* note 6 at 24.